run 5

THE JOURNAL OF STRATEGIC STUDIES GROUP

Issue 15

AUST $4.00/US $4.00/UK £2.50

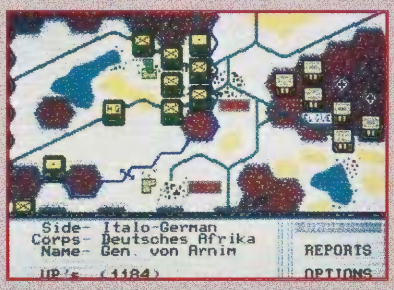
BUMPER ISSUE
20-Page FIRE KING Cluebook
Included FREE

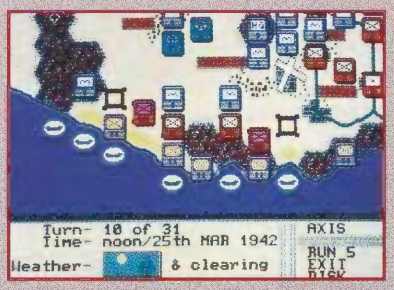
Featured in this Issue

- **Königgrätz** - Prussian riflemen take on Austrian musketmen
- **Ardennes** - one step forward and two steps back for Model's Army Group B
- **WarPaint™ on the Mac** - all you need to know to create great works of art
- **Gold of the Americas** - tips on strategy from the venerable Don Stefano

STUNNING GRAPHICS

Strategic Studies Group has long been renowned for producing great strategy games.
Now these games look as good as they feel.



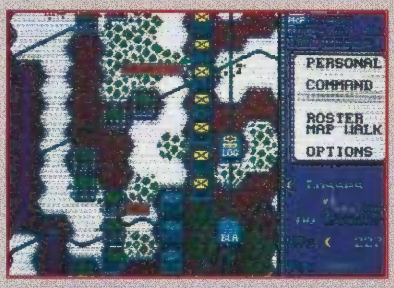


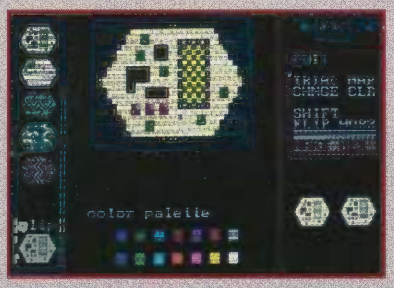
ROMMEL

(IBM Version Shown)

Relive the legend of the Desert Fox. Fight eight exciting battles from the crucial North African Campaign.

Available now for IBM, Apple II Family and C64/128 computers



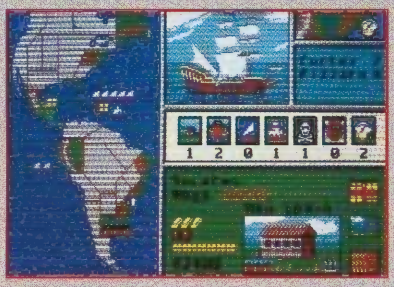


DECISIVE BATTLES OF THE AMERICAN CIVIL WAR (VOL III)

(IBM Version Shown)

Refight the bloody battles which doomed the Confederacy. Can you, as Robert E. Lee, change history.

Available now for IBM, Apple II Family and C64/128 computers

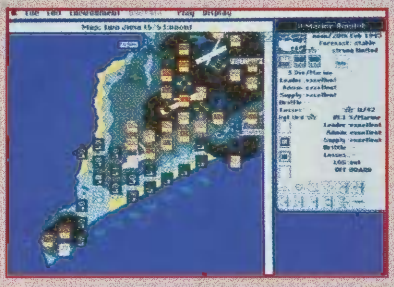


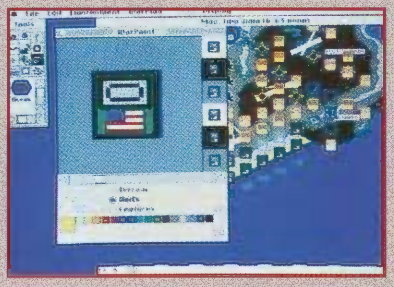
GOLD OF THE AMERICAS

(IBM Version Shown)

You must use the resources of a mighty European nation to conquer the New World. Set up colonies, harass your neighbours and amass great personal wealth.

Available now for IBM computers
Soon for the Amiga





HALLS OF MONTEZUMA

(Macintosh Version Shown)

Experience the thrill of leading the United States Marine Corps. Eight exciting scenarios take you through their history.

Available now for Macintosh, IBM, Apple II Family and C64/128 computers

FIRE KING

(C64 Version Shown)

Unravel the mystery of the Fire King's domain in this detailed action/adventure challenge. Ancient temples, blistering deserts, dark dungeons...

Available now for the C64/128
Soon for the IBM

How to Purchase. In North America, visit your retailer or call Electronic Arts 800-245-4525 (in CA call 800-562-1112) for VISA or Mastercard orders or write to Electronic Arts, P.O. Box 7530 San Mateo, CA. 94403. In Australia, write to SSG, P.O. Box 261 Drummoyne, 2047.

Run 5

Issue 15

Editor's Chance 2
Notes, work in progress. . .

Important Messages etc. 3
Please read these. . .

The Q Store 4
Have a look at our special offers

Königgrätz 5
The Clash of Eagles

Don Stephano Tells All 16
Colonial skullduggery exposed...

WarPaint™ on the Macintosh 18
Some handy hints

Ardennes 19
Two scenarios cover 'the big one'

Their Finest Hour 40
A review of the Lucasfilm game

Fire King Cluebook S1-S20
A twenty page supplement

Editor
Ian Trout

Assistant Editor
Stephen Hart

Contributing Editors
Roger Keating
Gregor Whiley
Danny Stevens
Malcolm Power
Mark Holman
Andrew Taubman

U.S. Operations
John Gleason

Illustrator
Nick Stathopoulos

Mentor
Ken Trout

Colour Artwork
John Mockridge
Graphus Pty Limited

Printing
Preston Print
Pty Limited

Run 5 is published 4 times per year by Strategic Studies Group Pty Limited. All Rights Reserved. © SSG 1990.

Australian Office
P.O. Box 261, Drummoyne, NSW. 2047. Tel (02) 819-7199. Fax (02) 819-7737.

American Office
1747 Orleans Court, Walnut Creek, CA. 94598. Tel (415) 932-3019.

ISSN 0816-7125

Online Addresses
Compuserve: Strategic Studies Group-72040,34
Applelink: Strategic Studies Group-AUST0161
MCI Mail: Strategic Studies Group-384-8467

Disk Subscriptions

Disk subscriptions are now available for All, C64, IBM, IIGS and Macintosh users. The cost is the same for all formats. IBM users must tell us whether they prefer 3.5" or 5.25" format.If you don't specify a format, you will receive the 5.25" diskette. If you wish to switch disk subscriptions from one machine format to another, just let us know.

When we find the time, we intend to upgrade all the scenario disks from back issues into the new formats and allow new users to acquire them or current users to upgrade to them. We'll keep the cost as low as possible; it will depend on how much time it takes and how many scenarios we can fit onto a disk.

Upgrading to New Machines

We have received a large number of requests from our users to upgrade a particular title from one machine to another. In response to this demand, we have decided upon the following policy.

Any title from our range may be upgraded from one machine to another for a cost of $USD20 (North America) or $AUD25 (Elsewhere). You must send us the original program disk and the front page of the manual from that game. We will send you a complete copy of the new version of the game.

For example, if you wish to upgrade a C-64 version of *Halls of Montezuma* to the IBM/Tandy version, you should send us the original C-64 disk, the front page of the manual and the appropriate cheque, money order or MC/Visa number.

North American users must send their components and funds to our US Office. Everybody else must use our Australian Office. The addresses are on page 4.

EDITOR'S CHANCE

ALTERED DISTRIBUTION

As this is being written, it looks as if we will be ending our distribution agreement with Electronic Arts for North America in August. Various alternative arrangements are currently being discussed and we will keep you informed of developments. In the interim, you can always order our games direct from our US office, where John Gleason will be pleased to help you.

If your local retailer is having difficulty obtaining our games, we'd like you pass on our US office phone number. Every little bit helps.

Our arrangements with Electronic Arts in Europe (who are doing a great job) will continue unchanged.

Due to the chaotic state of software distribution in Australia, we now sell direct to retailers and selected distributors as well as operate our own mail-order service. Call us and buy direct for prompt depatch.

NEXT ISSUE

The pendulum seems to be swinging back at last! Here it is, only early June, and Issue 15 is all ready for the printer. That's a gap of just nine weeks since Issue 14 went to press. Let's hear it for

An Important Note for Mac and IIGS Subscribers

The *Decisive Battles* game system is still in development for the Macintosh and IIGS. The Mac version will be available in July and the IIGS version later in the year.

Therefore, subscribers will receive only the two Ardennes scenarios on the Issue 15 scenario disk. The missing Königgrätz scenario will be sent to you as soon as it is available

the indefatiguable editor... Issue 16 is scheduled to go to press in the middle of September.

We're not certain which battles will appear in Issue 16; suffice it to say that we have a wide range of completed scenarios to choose from. There will be an article describing the use of War-Paint™ on the IIGS and another engrossing replay.

I'm off to the Origins '90 convention in Atlanta at the end of June, and we'll make the decision after that. There will be a detailed report on the progress of *Overlord*, as well as our new strategy/adventure game *Citadel of Chaos*.

I'll be previewing these two games at our booth in Atlanta. Hope to see as many of you there as I can.

JUST RELEASED

Since the publication of Issue 14, we have released *Gold of the Americas* (Atari ST and Mac), *Panzer Battles* (Mac), *Halls of Montezuma* (IIGS), *Fire King* (IBM) and *Decisive Battles Vol I* (IBM).

ABOUT TO BE RELEASED

We hope to release the following titles in the upcoming months.

July - *Decisive Battles Vol II* (Mac)

August - *Halls of Montezuma* (Amiga), *Rommel* (Mac)

September - *Overlord* (IBM), *Gold of the Americas* (IIGS), *Panzer Battles* (IIGS), *Halls of Montezuma* (Atari ST).

ONLINE UPDATE

We have been very pleased with the response to our online connections, especially on Compuserve. We've had long discussions with end users, been able to offer immediate product support and also let people know about new SSG products.

Compuserve libraries contain scenarios, most created by end users and also demo versions of our games for downloading. We log on about every two days, so response time is much quicker than sending a letter.

If you're already online, why don't you drop us a line. If you're not, think about it. Apart from being worthwhile it's also great fun.

Compuserve: Strategic Studies Group - 72040, 34

Applelink: Strategic Studies Group - AUST0161

MCI Mail: Strategic Studies Group - 384-8467

SUBSCRIPTIONS

Amiga users may take out a disk subscription from Issue 16. Atari ST users can subscribe from Issue 17.

GETTING OUT FROM DOWN UNDER

Nick Stathopolous
(Rennaisance Man)

Owners of SSG games have already been exposed to the artistic talents of Nick Stathopolous. Nick has done the cover artwork for Panzer Battles, Halls of Montezuma, Decisive Battles of the American Civil War Vols II and III, and the Third Edition of Reach for the Stars amongst others, as well as several specially commissioned Run 5 covers.

At SSG, we feel very lucky to have Nick around. He paints everything from Civil War cavalry to Tiger IIs with equal facility, and turns our very vague directions (for example "we want some artillery") into stunning concepts like the new artwork for Civil War Vol I.

As well as painting SSG artwork, Nick has worked in animation, art direction for a TV show, set construction and painting for music videos, mask and costume creation, a little sculpting in his spare time, and a host of other activities.

We felt that since Nick was so instrumental in promoting our games through his artwork, it was only fair that we did something to return the favour. If you need anything artistic created in any field, you can't go past the talented Nick Stathopolous.

CURRENT VERSION NUMBERS FOR ALL SSG GAMES

Reach for the Stars
AII (3.01), C64 (3.01), MAC (3.1), IBM (3.0), IIGS (3.1), AMIGA (3.1)

Carriers at War
AII (1.1), C64 (1.1)

Europe Ablaze
AII (1.0), C64 (1.0)

Battlefront
AII (1.0), C64 (1.0)

Russia
AII (1.0), C64 (1.0)

Battles in Normandy
AII (1.0), C64 (1.0)

Halls of Montezuma
AII (1.0), C64 (1.0), MAC (1.2), IBM (3.2*)

Decisive Battles of the American Civil War (Vol I)
AII (1.0), C64 (1.0)

Rommel
AII (1.0), C64 (1.0), IBM (3.2*)

Decisive Battles of the American Civil War (Vol II)
AII (1.0), C64 (1.0), IBM (2.2**)

MacArthur's War
AII (1.0), C64 (1.0)

Decisive Battles of the American Civil War (Vol III)
AII (1.0), C64 (1.0), IBM (2.2*)

Fire King
C64 (1.0)

Gold of the Americas
IBM (1.01), AMIGA (1.0), Atari ST (1.0)

Panzer Battles
AII (1.0), C64 (1.0), MAC (1.2), IBM (3.2*)

Notes

* The difference between the .2 and .1 versions is the addition of the + and - key functions which allow you to vary the speed of the unit animation with "Full Map" graphics. This is especially useful with fast 386 machines.

** As above except that this upgrade will not be available until the end of June.

THE Q STORE

RUN 5
SUBSCRIPTION RATES
(4 issues/1 year)

IN AUSTRALIA
Magazine/disk sub. = $AUD 65.00
Magazine only sub. = $AUD 15.00

IN NORTH AMERICA
Magazine/disk sub. = $USD 65.00
Magazine only sub. = $USD 15.00

ELSEWHERE
(Surface Post)
Magazine/disk sub. = $AUD 75.00
Magazine only sub. = $AUD 25.00

(Airmail Post)
Magazine/disk sub. = $AUD 90.00
Magazine only sub. = $AUD 35.00

To subscribe, consult the schedule of fees above and make sure you include your computer type (Apple, C-64 or IBM) with your cheque or money order if you want a disk subscription. A disk subscription entitles you to however many disks are necessary to complement all the scenarios in the magazine.

For those of you who don't want to spend this extra money... don't worry. All the data necessary to build the magazine scenarios will be provided for you.

Customers in North America should send their Visa, Mastercard, cheque or money order to -

Strategic Studies Group Inc.
1747 Orleans Ct
Walnut Creek, CA. 94598
USA.

(Tel: 415-932-3019)

Customers in Australia and Elsewhere can dial direct (02-819-7199) for Visa and Mastercard orders or send their cheque or money order to- (European Customers should note that Eurochecks are not acceptable)

Strategic Studies Group Pty Ltd
P.O. Box 261, Drummoyne, NSW. 2047. AUSTRALIA

RUN 5
BACK ISSUES

IN AUSTRALIA
Single Issue = $AUD 5.00
Plus $AUD 1.00 shipping (max.)

IN NORTH AMERICA
Single Issue = $USD 5.00
Plus $USD 1.00 shipping (max.)

ELSEWHERE
Single Issue = $AUD 5.00
Plus $AUD 2.00 surface shipping (max.) or $AUD 4.50 air shipping for the first magazine and $AUD 2.00 for each subsequent magazine.

RUN 5
SCENARIO DISKS
(Apple II/C64/IBM or Mac Format)

IN AUSTRALIA
Single Disk = $AUD 15.00 ea.
2 or 3 Disks = $AUD 12.00 ea.
4 or more Disks = $AUD 10.00 ea.
Plus $AUD 1.00 shipping (max.)

IN NORTH AMERICA
Single Disk = $USD 15.00 ea.
2 or 3 Disks = $USD 12.00 ea.
4 or more Disks = $USD 10.00 ea.
Plus $USD 1.00 shipping (max.)

ELSEWHERE
Single Disk = $AUD 15.00 ea.
2 or 3 Disks = $AUD 12.00 ea.
4 or more Disks = $AUD 10.00 ea.
Plus $AUD2.00 surface shipping (max.) or $AUD4.50 air shipping (max.)

REACH FOR THE STARS
UPGRADE
At last. ***Reach for the Stars*** (3rd Ed.) is completed. If you own a second edition copy of the game, you can upgrade it to third edition **(Apple II or C64 version)**. Issue 8 contains a strategy article on the new RFTS. You must enclose the front page of the second edition rulebook and the original disk to be eligible for the upgrade.

IN AUSTRALIA
RFTS Upgrade = $AUD 20.00

IN NORTH AMERICA
RFTS Upgrade = $USD 20.00

ELSEWHERE
RFTS Upgrade = $AUD 20.00
Plus $AUD 4.50 air shipping

POSTERS
Put our great artwork on your wall. SSG game posters are approximately 26" x 16" and printed in glorious full colour. We have posters available for each of these game titles.

Reach For The Stars, Halls of Montezuma, Decisive Battles of the American Civil War (Vol 1-3), Rommel, MacArthur's War

IN AUSTRALIA
Single Poster = $AUD 4.00 ea.
2 or more Posters = $AUD 3.00 ea.
Plus $AUD 2.00 shipping (max.)

IN NORTH AMERICA
Single Poster = $USD 4.00 ea.
2 or more Posters = $USD 3.00 ea.
Plus $USD 2.00 shipping (max.)

ELSEWHERE
Single Poster = $AUD 4.00 ea.
2 or more Posters = $AUD 3.00 ea.
Plus $AUD3.00 surface shipping (max.) or $AUD5.50 air shipping (max.)

KONIGGRATZ

The Clash of Eagles

July 3rd, 1866

A Scenario for the *Decisive Battles* System

by Ian Trout and Stephen Hart

The Austro-Prussian (Seven Weeks') War, fought in June-July of 1866, was a result of some aggressive power politics by Prussia. The occupation of Holstein was condemned by Austria but in the shifting world of German State politics this was hardly an unprecedented move.

The Prussian Chancellor Otto von Bismarck, however, had overstepped the mark by concluding a secret treaty with France and this met with widespread condemnation from all the German states. Bismarck responded by dissolving the Germanic Confederation, calling on Italy to honour the offensive-defensive treaty signed in April and mobilizing for war. The scene was set for a confrontation in Bohemia.

THE OPPOSING ARMIES

Prussia

At the Treaty of Tilsit, signed in 1807 after defeats at Jena and Auerstadt, Prussia was limited to a very small standing army. She responded by introducing universal conscription, wherein every able-bodied man was required to serve for two years and remain in reserve indefinitely, thus guaranteeing a large supply of trained soldiery. The army was well organized with Corps raised for each region. Each Corps consisted of 2 Divisions with additional corps troops. Each Division consisted of 2 Brigades plus an attached cavalry regiment and attached field artillery - 4 batteries each of 6 guns.

Infantry were armed with the breech-loading needle gun. It was not a powerful weapon, having a range of only 600-700 paces but it could be fired rapidly and reloaded from a prone position.

Artillery was the weakest arm, being only 40% rifled and with an effective range of about 1500 paces. It was badly handled tactically, being generally kept behind the infantry and arriving in action too late to be of much use.

At the Battle of Königgrätz the Prussian forces were in three separate Armies under the nominal command of His Majesty King William and the effective command of the Chief of General Staff, General von Moltke. The 1st Army under the command of HRH Prince Frederick Charles of Prussia consisted of 6 infantry Divisions and 2 Cavalry Divisions. The 2nd Army, under the command of the Crown Prince (in reality, General Blumenthal), consisted of three regular Corps, the Guards' Corps and a Cavalry Division. The Army of the Elbe, under the command of General Herwarth von Bittenfeld, consisted of

A NOTE FOR IBM USERS

There are two Königgrätz files on the disk. One is for use with the Decisive Battles Vol II Master Disk and the other is for use with the Decisive Battles Vol I or III Master Disks. Your Master Disk (whichever one you use) will select the correct file.

The major difference between the Master Disks is the graphics. The Vol I/III Master Disks use 16-colour unit icons and smooth unit animation. IBM disk subscribers will receive a free Vol II upgrade with the Issue 16 subscription disk. (It was going to be with this issue but didn't get it finished in time). Other IBM users may purchase a Vol II upgrade for $10 (plus $2.50 post and handling) at any time after the publication of Issue 16.

IBM users who intend to create the scenarios from the data provided in the magazine should read the notes of explanation provided at the end of the "Creating the Scenario" section as well as the article on the use of "Full Map" graphics which appeared in Issue 14.

IBM users with EGA or VGA cards should also read the notes on .LBM files.

Helmuth von Moltke

Ludwig von Benedek

three infantry Divisions and 2 Cavalry Brigades.

Austria

The Austrian Army was maintained by a conscription system which allowed the buying of substitutes. The Army as a whole was not as homogeneous as the Prussian, taking in units from across the empire and it was not as well organized, having no Divisional level of command. The peacetime organization consisted of seven Army Corps, each of 4 brigades, plus cavalry and artillery. For the Austro-Prussian war this was expanded to 10 Corps, resulting in considerable disorganization.

Infantry were armed with a muzzle-loading rifle. This out-ranged the Prussian needle gun but was much slower to load. Moreover, since a soldier was only allowed 20 practice rounds per year, the standard of accuracy was appalling.

Artillery was strong. All guns were rifled and had an effective range of about 2000 paces, again out-ranging the Prussians.

At the Battle of Königgrätz, the Austrian Army was under the command of Feldzeugmeister Ritter von Benedek. The Army consisted of seven infantry Corps of which one (VIII Corps) was made up of mostly allied troops (assorted Bavarians, Wutemburgers, Badish, Hessians, Nassovians and Hesse-Kasselans), and five cavalry Divisions, together with the Royal Saxon Army Corps under the command of HRH the Crown Prince of Saxony which consisted of 2 infantry Divisions and a cavalry Division plus artillery.

THE BATTLEFIELD

The Battle of Königgrätz was fought in a hilly part of Bohemia, between the Castle of Königgrätz and the village of Sadowa, after which the battle is also sometimes named. The River Bistritz flows North-South by Sadowa and represents the effective western border of the major fighting area.

East of the Bistritz for two to three miles the ground is hilly and uneven with a number of small wooded areas and many small villages and hamlets. East of this again the ground is more even, sloping gently down to the River Trotina and Königgrätz where there is a north-south railway line and denser habitation. Most of the fighting took place on the ridges.

THE BATTLE PLANS

Prussia

Von Moltke conceived an ambitious plan for a double-envelopment and annihilation of the Austrian Army. The 1st Army was to occupy the enemy attention in the centre, giving the impression of impending massed attack there. The 2nd Army was to attack the Austrian right flank from the north and the Army of the Elbe was to attack the Austrian left flank.

Austria

Von Benedek planned a defensive battle forming his army into a rough triangle on the high ground to the east of the River Bistritz. The Saxon Corps would be in the south and the remaining Corps in a curve from Langenhof to Lochenitz. The 8th Corps would be in reserve behind the Saxons and the 1st and 6th Corps (plus some cavalry and artillery) would form a general reserve in the centre near Wsestar and Rosnitz.

Prussian sources severely criticize the Austrian plan, on the grounds that such a concentration made the double enveloping action easy. Prussian sources are somewhat biased however and the plan of a solid defense on high ground with a large mobile reserve does not seem such a bad one. Factors other than the initial deployment play a strong part in the resulting Austrian defeat.

THE BATTLE

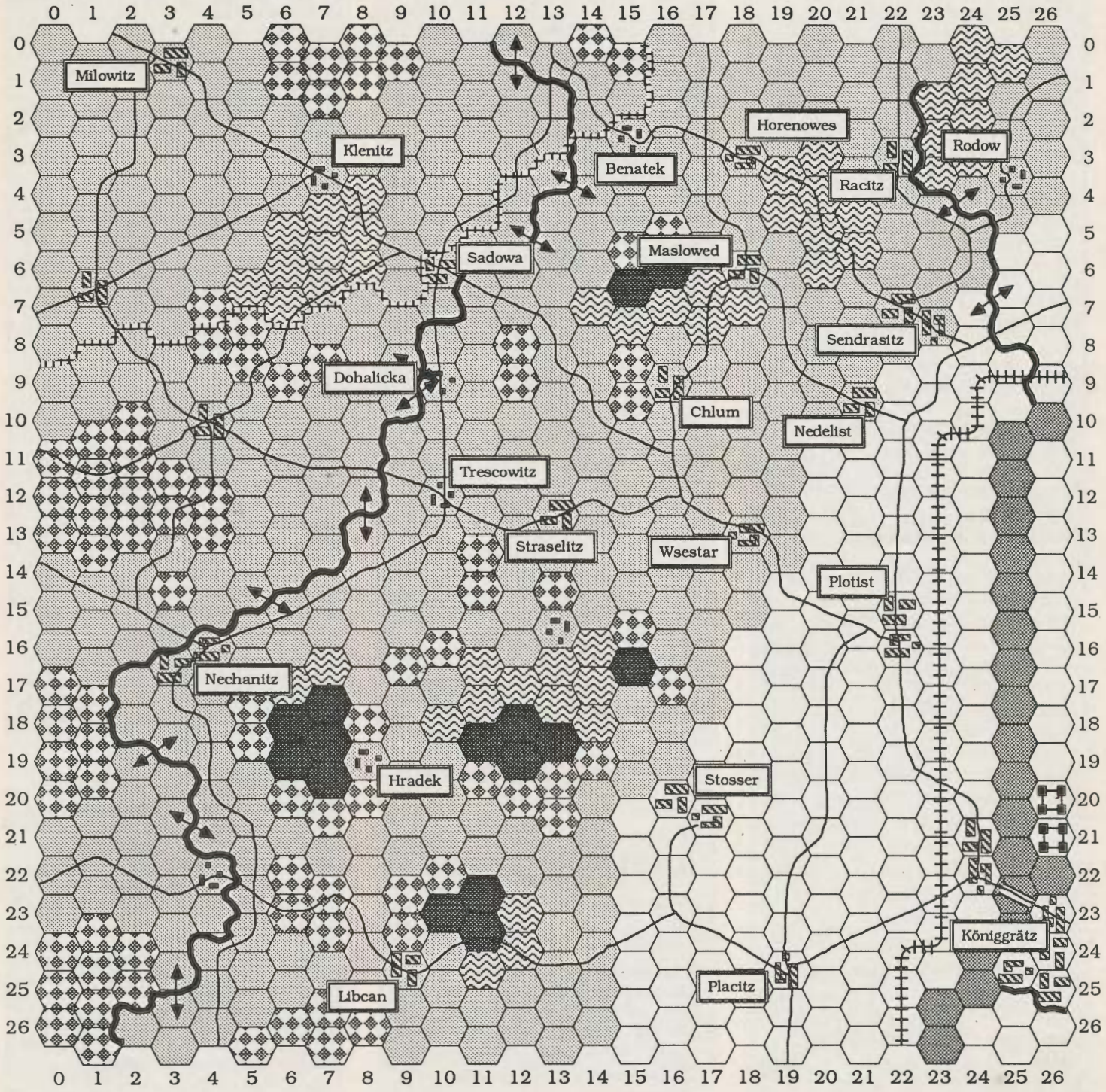
At dawn on July 3rd, the battlefield was covered with a thick mist and the Prussian 1st Army was able to move under its cover. The 8th Division engaged the Austrian outpost at Sadowa and the 7th, already stationed on the east bank at Cerekwitz to the north, started to move south and took the village of Benatek.

The Army of the Elbe has been late setting off due to a delay in the transmission of their orders. By 8 am the advance battalions had taken the village of Neckanitz on the east bank of the river but the rest of the Army had yet to arrive.

The 2nd Army was even more delayed. The 12th Division was halfway across the Elbe on another mission when it was recalled. The 11th Division, on the same mission, had not yet set off and so was available to move towards Racitz on the northern edge of the battlefield. The first Corps, however, was still in its

Continued on p. 9

KONIGGRATZ - Map



FLATS
WOODS
ROAD
RIVER
BRIDGE
FARMLAND
WOODS/ RIDGE
TOWN
VILLAGE
FORD
RIDGE
ELBE RIVER
FRONT LINE
FORTRESS
RAILWAY

Prussian Forces

The Prussian Army

King William of Prussia
(General von Moltke)

Frederick's Corps (1st Army)

Attached to Corps HQ

Ramm's Bty (Ram; 600 crew, 24 guns), Lillenthal's Bty (Lil; 600 crew, 24 guns)

Werder's Division (3rd)

Buddenbrock's Bde (Bud; 1,300 inf, 6 guns), Borke's Bde (Bor; 2,000 inf, 6 guns), Winterfeld's Bde (Win; 1,600 inf, 6 guns), Stahr's Bde (Sta; 1,700 inf, 6 guns)

Bittenfeld's Division (4th)

Wietersheim's Bde (Wie; 1,700 inf, 6 guns), Michaelis' Bde (Mic; 1,900 inf, 6 guns), Krane's Bde (Kra; 2,100 inf, 6 guns)

Kamienski's Division (5th)

Diringshofen's Bde (Dir; 1,600 inf, 6 guns), Berger's Bde (Ber; 1,800 inf, 6 guns), Barres' Bde (Bar; 2,100 inf, 6 guns)

Manstein's Division (6th)

Gersdorf's Bde (Ger; 1,700 inf, 6 guns), Goertz' Bde (Goe; 2,100 inf, 6 guns), Hacke's Bde (Hac; 2,200 inf, 6 guns)

Fransecky's Division (7th)

Gordon's Bde (Gor; 1,800 inf, no guns), Medem's Bde (Med; 1,900 inf, no guns), Bothmer's Bde (Bot; 2,000 inf, no guns)

Horn's Division (8th)

Valentini's Bde (Val; 1,600 inf, 6 guns), Avemann's Bde (Ave; 1,800 inf, 6 guns), Wedell's Bde (Wed; 1,600 inf, 6 guns)

Albrecht's Cavalry Division

Pfuel's Bde (Pfu; 2,400 cav, 6 guns), Weyhern's Bde (Wey; 1,700 cav, no guns)

Bittenfeld's Corps (Army of the Elbe)

Attached to Corps HQ

Goltz' Bde (Gol; 2,100 cav, 6 guns)

Schoeler's Division (Adv. Gd)

Koblinski's Bde (Kob; 1,600 inf, 6 guns), Conrady's Bde (Con; 1,600 inf, 6 guns)

Munster's Division (14th)

Schwartz' Bde (Sch; 2,500 inf, 6 guns), Hiller's Bde (Hil; 2,200 inf, 6 guns)

Canstein's Division (15th)

Steuckradt's Bde (Ste; 2,100 inf, 6 guns), Glasenapp's Bde (Gla; 2,400 inf, 6 guns)

Etzel's Division (16th)

Senden's Bde (Sen; 2,200 inf, 6 guns), Wegerer's Bde (Weg; 2,700 inf, 6 guns)

Blumenthal's Corps (2nd Army)

Attached to Corps HQ

Kameke's Bty (Kam; 600 crew, 24 guns), Oertzen's Bty (Oer; 600 crew, 24 guns), Hohenlohe's Bty (Hoh; 600 crew, 24 guns)

Gartringen's Division (1st Gd)

Alvensleben's Bde (Alv; 2,100 inf, 6 guns), Obernitz' Bde (Obe; 2,000 inf, 6 guns), Kessel's Bde (Kes; 1,800 inf, 6 guns)

Pionski's Division (2nd Gd)

Pritzelwitz' Bde (Pri; 1,700 inf, 6 guns), Budritzki's Bde (Bud; 2,500 inf, 6 guns), Loen's Bde (Loe; 1,900 inf, 6 guns)

Grosmann's Division (1st)

Pape's Bde (Pap; 3,100 inf, 12 guns), Bredow's Cav Bde (Bre; 2,000 cav, 6 guns)

Clausewitz' Division (2nd)

Malokti's Bde (Mal; 2,500 inf, 6 guns), Boswell's Bde (Bos; 2,600 inf, 6 guns), Barnekow's Bde (Bar; 2,800 inf, 12 guns)

Zastrow's Division (11th)

Hanenfeldt's Bde (Han; 3,000 inf, 6 guns), Hoffmann's Bde (Hof; 2,900 inf, 6 guns)

Prondzynski's Division (12th)

Ruville's Bde (Ruv; 1,200 inf, 6 guns), Kaminski's Bde (Kam; 1,600 inf, 6 guns)

Lowenfeldt's Division (9th)

Below's Bde (Bel; 2,900 inf, 6 guns), Horn's Bde (Hor; 2,200 inf, 6 guns)

Kirchbach's Division (10th)

Tiedemann's Bde (Tie; 2,800 inf, 6 guns), Witlich's Bde (Wit; 2,700 inf, 6 guns)

Hartmann's Cavalry Division

Wnuck's Bde (Wnu; 1,900 cav, 6 guns), Witzleben's Bde (Wit; 1,700 cav, 6 guns), Borstel's Bde (Bor; 1,600 cav, no guns)

Austrian Forces

The Austrian Army

FZM Ritter von Benedek

Attached to Army HQ

1st/Res Bty (1/R; 800 crew, 28 guns), 2nd/Res Bty (2/R; 800 crew, 28 guns), 3rd/Res Bty (3/R; 800 crew, 28 guns), 4th/Res Bty (4/R; 800 crew, 28 guns)

Edelsheim's Light Cavalry Division (1st)

1st/1LC Bde (1LC; 2,100 cav, 4 guns), 2nd/1LC Bde (2LC; 2,100 cav, 4 guns)

Thurn's Light Cavalry Division (2nd)

1st/2LC Bde (3LC; 2,300 cav, 4 guns), 2nd/2LC Bde (4LC; 2,000 cav, 4 guns)

Schleswig's Heavy Cavalry Division (1st)

1st/1HC Bde (1HC; 1,800 cav, no guns), 2nd/1HC Bde (2HC; 2,000 cav, no guns)

Zaitsek's Heavy Cavalry Division (2nd)

1st/2HC Bde (3HC; 2,000 cav, no guns), 2nd/2HC Bde (4HC; 2,200 cav, no guns)

Coudenhove's Heavy Cavalry Division (3rd)

1st/3HC Bde (5HC; 2,300 cav, no guns), 2nd/3HC Bde (6HC; 2,000 cav, no guns)

Gallas' Corps (1st)

Attached to Corps HQ

1st/1C Bde (1/1; 2,900 inf, 8 guns), 2nd/1C Bde (2/1; 3,000 inf, 8 guns), 3rd/1C Bde (3/1; 3,000 inf, 8 guns), 4th/1C Bde (4/1; 2,800 inf, 8 guns), Cav/1C Bde (C/1; 1,600 cav, 4 guns)

Thun's Corps (2nd)

Attached to Corps HQ

1st/2C Bde (1/2; 3,100 inf, 8 guns), 2nd/2C Bde (2/2; 2,600 inf, 8 guns), 3rd/2C Bde (3/2; 2,700 inf, 8 guns), 4th/2C Bde (4/2; 2,900 inf, 8 guns), Cav/2C Bde (C/2; 1,700 cav, 4 guns)

Ernst's Corps (3rd)

Attached to Corps HQ

1st/3C Bde (1/3; 3,000 inf, 8 guns), 2nd/3C Bde (2/3; 3,000 inf, 8 guns), 3rd/3C Bde (3/3; 2,600 inf, 8 guns), 4th/3C Bde (4/3; 3,100 inf, 8 guns), Cav/3C Bde (C/3; 2,000 cav, 4 guns)

Festeticz' Corps (4th)

Attached to Corps HQ

1st/4C Bde (1/4; 3,100 inf, 8 guns), 2nd/4C Bde (2/4; 2,800 inf, 8 guns), 3rd/4C Bde (3/4; 2,700 inf, 8 guns), 4th/4C Bde (4/4; 2,500 inf, 8 guns), Cav/4C Bde (C/4; 1,800 cav, 4 guns)

Ramming's Corps (6th)

Attached to Corps HQ

1st/6C Bde (1/6; 2,700 inf, 8 guns), 2nd/6C Bde (2/6; 2,900 inf, 8 guns), 3rd/6C Bde (3/6; 2,800 inf, 8 guns), 4th/6C Bde (4/6; 2,600 inf, 8 guns), Cav/6C Bde (C/6; 2,100 cav, 4 guns)

Leopold's Corps (8th)

Attached to Corps HQ

1st/8C Bde (1/8; 2,700 inf, 8 guns), 2nd/8C Bde (2/8; 3,100 inf, 8 guns), 3rd/8C Bde (3/8; 2,800 inf, 8 guns), 4th/8C Bde (4/8; 2,700 inf, 8 guns), Cav/8C Bde (C/8; 1,900 cav, 4 guns)

Gablenz' Corps (10th)

Attached to Corps HQ

1st/10C Bde (1/X; 3,000 inf, 8 guns), 2nd/10C Bde (2/X; 2,700 inf, 8 guns), 3rd/10C Bde (3/X; 2,700 inf, 8 guns), 4th/10C Bde (4/X; 3,000 inf, 8 guns), Cav/10C Bde (C/X; 1,900 cav, 4 guns)

Royal Saxon Corps

Attached to Corps HQ

Schimpff's Bde (Sch; 2,400 inf, 6 guns), Stieglitz' Bde (Sti; 2,200 inf, 6 guns), Kohler's Bde (Koh; 2,100 inf, 6 guns), Fritsch's Cav Bde (Fri; 1,700 cav, 4 guns)

KONIGGRATZ - Terrain Effects Chart

TERRAIN #	0-31	0	1	2	3	4	5	6	7	8	9	10
TERRAIN NAME	[11]	Elbe River	Elbe Bridge	Flats	Farmland	Ridge	Woods	Woods/Ridge	Railway	Fortress	Town	Village
SIGHTING VAL.	0-7	0	0	0	1	4	8	8	0	0	4	3
MOVEMENT	0-7	0	2	1	2	2	3	4	1	1	2	2
COVER VALUE	0-7	0	0	0	1	3	6	6	0	7	5	3
FORT VAL. (N)	0-7	0	0	0	0	0	0	0	0	0	2	1
FORT VAL. (S)	0-7	0	0	0	0	0	0	0	0	7	2	1

KONIGGRATZ - Divisions

DIV. NUMBER	1-39	1	2	3	4	5	6	7	8	9	10	11
DIVISION I.D.	[9]	Edelsheim	Thurn	Schleswig	Zaitsek	Coud'hove	Werder	Bitt'feld	Kamienski	Manstein	Fransecky	Horn
CORPS	0-15	0	0	0	0	0	9	9	9	9	9	9
TYPE	0-1	1	1	1	1	1	0	0	0	0	0	0
ORDERS	0-2	2	1	2	2	1	0	0	2	2	0	0
OBJECTIVE #1	0-23	0	7	0	0	21	10	3	0	0	18	6
OBJECTIVE #2	0-23	0	0	0	0	0	13	14	0	0	4	0
LEADERSHIP	0-7	4	2	2	1	3	5	5	4	6	7	6
STAFF	0-7	3	3	3	3	3	6	6	6	6	6	6

DIV. NUMBER	1-39	12	13	14	15	16	17	18	19	20	21	22
DIVISION I.D.	[9]	Albrecht	Schoeler	Munster	Canstein	Etzel	Gartr'gen	Plonski	Grossmann	Cl'sewitz	Zastrow	Pr'zynski
CORPS	0-15	9	10	10	10	10	11	11	11	11	11	11
TYPE	0-1	1	0	0	0	0	0	0	0	0	0	0
ORDERS	0-2	0	0	0	0	0	0	0	0	0	0	0
OBJECTIVE #1	0-23	3	2	2	2	2	17	17	17	17	17	7
OBJECTIVE #2	0-23	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	6	6	3	6	4	7	6	4	7	4	5
STAFF	0-7	6	5	5	5	5	6	6	6	6	6	6

DIV. NUMBER	1-39	23	24	25
DIVISION I.D.	[9]	Loew'feld	Kirchbach	Hartmann
CORPS	0-15	11	11	11
TYPE	0-1	0	0	1
ORDERS	0-2	0	0	0
OBJECTIVE #1	0-23	7	7	7
OBJECTIVE #2	0-23	0	0	0
LEADERSHIP	0-7	4	4	7
STAFF	0-7	6	6	6

Continued from p. 6

billets at distant Prausnitz as the battle got under way.

About 8.30 am, the 7th Division under Lieut-General Fransecky, was following its orders to move towards and support the fighting at Sadowa. Due to its initial placement east of the river, however, it was making this move entirely unsupported against the bulk of the Austrian army. The advance battalions swept into the Maslowed Wood (or Swiepwald) and even briefly occupied the village of Cistowes to the south before being forced back into the wood.

The Austrian 4th and 2nd Corps, which were supposed to form an east-west line through Chlum and Lochenitz, moved to a north-south line up to Horenowes. The unlucky 7th Division was soon opposed by two full Austrian Corps! Unfortunate as this was for Fransecky's men, it was a poor line-up for the Austrians. It seems that Benedek had neglected to send cavalry scouts out to the north and was thus unaware of the forces descending, however tardily, upon him from that direction.

Throughout the morning, Fransecky's men held on grimly against a series of brigade attacks by the 4th and 2nd Corps. They were aided by the tactical superiority of their needle guns in such a short-range tactical situation but they were also fully aware that retreat from the wood meant annihilation in the open. Fortunately for them, the Austrians never made the general attack that would have swamped the wood.

There was very little that could be done in the way of support. The 8th Division advanced to the edge of the Sadowa wood but were pinned down there by the massed Austrian artillery. The 3rd and 4th Divisions also crossed the river south of the 8th but could render little material assistance. The 5th and 6th Divisions were brought up to Sowetitz with a view to perhaps reinforcing the troops in the Maslowed Wood.

The Army of the Elbe, meanwhile, was completing its crossing of the river at Neckanitz, covered by advance battalions at Lubno and Hradek. Austria's Saxon allies made no attempt to contest the crossing.

The 2nd Prussian Army was marching south in a piecemeal fashion. The 11th Division took Racitz with little opposition and the Guard Corps was approaching fast but the 1st Corps was still many miles away.

At this point, towards the end of the morning, the Austrian position was a strong one. Its line had not been threatened, its reserves were uncommitted and its artillery dominated the heights. It was also about to fall apart.

Continued on p. 13

KONIGGRATZ - Brigades

UNIT NUMBER	1-127	1	2	3	4	5	6	7	8	9	10	11
UNIT I.D. (Full)	[9]	1st/1C	2nd/1C	3rd/1C	4th/1C	Cav/1C	1st/2C	2nd/2C	3rd/2C	4th/2C	Cav/2C	1st/3C
UNIT I.D. (Abbr)	[3]	1/1	2/1	3/1	4/1	C/1	1/2	2/2	3/2	4/2	C/2	1/3
MAP LOCATION	(x,y)	22,23	21,22	22,22	22,21	20,20	22,5	22,6	23,5	23,6	24,5	11,7
CORPS	0-15	1	1	1	1	1	2	2	2	2	2	3
DIVISION	0-39	0	0	0	0	0	0	0	0	0	0	0
ARRIVAL	0-95	0	0	0	0	0	0	0	0	0	0	0
TYPE	0-3	0	0	0	0	2	0	0	0	0	2	0
OBJECTIVE	0-23	0	0	0	0	0	0	0	0	0	0	0
SMALL ARMS	0-31	1	1	1	1	3	1	1	1	1	3	1
ARTILLERY	0-31	10	9	9	9	8	9	9	9	9	8	10
TROOP STREN.	0-31	29	30	30	28	16	31	26	27	29	17	30
MOVEMENT	0-15	6	6	6	6	9	6	6	6	6	9	6
BATTERY STR.	0-15	4	4	4	4	2	4	4	4	4	2	4
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	3	5	2	2	3	4	4	1	3	5	5
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	5	5	5	5	4	3	3	3	3	3	3
REGIMENTS	0-7	4	4	4	4	2	4	4	4	4	3	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

UNIT NUMBER	1-127	12	13	14	15	16	17	18	19	20	21	22
UNIT I.D. (Full)	[9]	2nd/3C	3rd/3C	4th/3C	Cav/3C	1st/4C	2nd/4C	3rd/4C	4th/4C	Cav/4C	1st/6C	2nd/6C
UNIT I.D. (Abbr)	[3]	2/3	3/3	4/3	C/3	1/4	2/4	3/4	4/4	C/4	1/6	2/6
MAP LOCATION	(x,y)	12,6	11,6	13,6	13,7	19,7	20,7	18,8	19,8	20,8	19,13	19,14
CORPS	0-15	3	3	3	3	4	4	4	4	4	5	5
DIVISION	0-39	0	0	0	0	0	0	0	0	0	0	0
ARRIVAL	0-95	0	0	0	0	0	0	0	0	0	0	0
TYPE	0-3	0	0	0	2	0	0	0	0	2	0	0
OBJECTIVE	0-23	0	0	0	0	0	0	0	0	0	0	0
SMALL ARMS	0-31	1	1	1	3	1	1	1	1	3	1	1
ARTILLERY	0-31	10	9	10	8	9	9	10	10	8	9	9
TROOP STREN.	0-31	30	26	31	20	31	28	27	25	18	27	29
MOVEMENT	0-15	6	6	6	9	6	6	6	6	9	6	6
BATTERY STR.	0-15	4	4	4	2	4	4	4	4	2	4	4
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	2	4	3	4	3	4	2	2	3	2	5
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	4	4	4	4	4	4	4	4	4	3	3
REGIMENTS	0-7	4	4	4	2	4	4	4	4	2	4	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

UNIT NUMBER	1-127	23	24	25	26	27	28	29	30	31	32	33
UNIT I.D. (Full)	[9]	3rd/6C	4th/6C	Cav/6C	1st/8C	2nd/8C	3rd/8C	4th/8C	Cav/8C	1st/10C	2nd/10C	3rd/10C
UNIT I.D. (Abbr)	[3]	3/6	4/6	C/6	1st	2nd	3/8	4/8	C/8	1/X	2/X	3/X
MAP LOCATION	(x,y)	18,14	19,12	17,12	21,11	21,12	20,12	22,12	20,11	13,11	14,12	14,13
CORPS	0-15	5	5	5	6	6	6	6	6	7	7	7
DIVISION	0-39	0	0	0	0	0	0	0	0	0	0	0
ARRIVAL	0-95	0	0	0	0	0	0	0	0	0	0	0
TYPE	0-3	0	0	2	0	0	0	0	2	0	0	0
OBJECTIVE	0-23	0	0	0	0	0	0	0	0	0	0	0
SMALL ARMS	0-31	1	1	3	1	1	1	1	3	1	1	1
ARTILLERY	0-31	9	9	8	10	10	10	9	8	9	9	10
TROOP STREN.	0-31	28	28	21	27	31	28	27	19	30	27	27
MOVEMENT	0-15	6	6	9	6	6	6	6	9	6	6	6
BATTERY STR.	0-15	4	4	2	4	4	4	4	2	4	4	4
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	6	2	4	4	5	4	4	3	5	4	5
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	3	3	3	4	4	4	4	4	3	3	3
REGIMENTS	0-7	4	4	2	4	4	4	4	2	4	4	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

KONIGGRATZ - Brigades (Cont.)

UNIT NUMBER	1-127	34	35	36	37	38	39	40	41	42	43	44
UNIT I.D. (Full)	[9]	4th/10C	Cav/10C	1st/1LC	2nd/1LC	1st/2LC	2nd/2LC	1st/1HC	2nd/1HC	1st/2HC	2nd/2HC	1st/3HC
UNIT I.D. (Abbr)	[3]	4/X	C/X	1LC	2LC	3LC	4LC	1HC	2HC	3HC	4HC	5HC
MAP LOCATION	(x,y)	13,13	11,12	20,25	21,25	25,2	25,3	23,8	23,9	20,17	20,18	8,14
CORPS	0-15	7	7	0	0	0	0	0	0	0	0	0
DIVISION	0-39	0	0	1	1	2	2	3	3	4	4	5
ARRIVAL	0-95	0	0	0	0	0	0	0	0	0	0	0
TYPE	0-3	0	2	2	2	2	2	2	2	2	2	2
OBJECTIVE	0-23	0	0	0	0	0	0	0	0	0	0	0
SMALL ARMS	0-31	1	3	3	3	3	3	4	4	4	4	4
ARTILLERY	0-31	9	8	8	8	8	8	0	0	0	0	0
TROOP STREN.	0-31	30	19	21	22	23	20	18	20	20	22	23
MOVEMENT	0-15	6	9	9	9	9	9	9	9	9	9	9
BATTERY STR.	0-15	4	2	2	2	2	2	0	0	0	0	0
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	4	5	4	4	3	4	6	5	5	4	4
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	3	3	5	5	4	4	6	6	5	5	5
REGIMENTS	0-7	4	2	3	3	3	3	2	2	2	2	2
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

UNIT NUMBER	1-127	45	46	47	48	49	50	51	52	53	54	55
UNIT I.D. (Full)	[9]	2nd/3HC	Schimpff	Stieglitz	Kohler	Fritsch	1st/Res	2nd/Res	3rd/Res	4th/Res	Buddenbr'	Borke
UNIT I.D. (Abbr)	[3]	6HC	Sch	Sti	Koh	Fri	1/R	2/R	3/R	4/R	Bud	Bor
MAP LOCATION	(x,y)	9,13	4,17	5,16	8,17	8,22	21,14	21,15	20,15	20,16	3,5	0,6
CORPS	0-15	0	8	8	8	8	0	0	0	0	0	0
DIVISION	0-39	5	0	0	0	0	0	0	0	0	6	6
ARRIVAL	0-95	0	0	0	0	0	0	0	0	0	0	0
TYPE	0-3	2	0	0	0	2	3	3	3	3	0	0
OBJECTIVE	0-23	0	0	0	0	0	0	0	0	0	0	0
SMALL ARMS	0-31	4	1	1	1	3	0	0	0	0	2	2
ARTILLERY	0-31	0	6	9	9	8	10	10	10	10	5	6
TROOP STREN.	0-31	20	24	22	21	17	8	8	8	8	13	20
MOVEMENT	0-15	9	6	6	6	9	5	5	5	5	8	6
BATTERY STR.	0-15	0	3	3	3	2	14	14	14	14	3	3
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	4	3	4	4	5	6	6	5	5	5	4
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	5	4	4	4	5	6	5	5	5	6	5
REGIMENTS	0-7	2	4	4	4	3	4	4	4	4	5	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

UNIT NUMBER	1-127	56	57	58	59	60	61	62	63	64	65	66
UNIT I.D. (Full)	[9]	Wint'feld	Stahr	Wie'sheim	Michaelis	Krane	Diringsh'	Berger	Barres	Gersdorf	Goetz	Hacke
UNIT I.D. (Abbr)	[3]	Win	Sta	Wie	Mic	Kra	Dir	Ber	Bar	Ger	Goe	Hac
MAP LOCATION	(x,y)	0,7	1,6	8,5	6,4	5,4	4,2	2,0	2,0	5,0	4,0	4,0
CORPS	0-15	0	0	0	0	0	0	0	0	0	0	0
DIVISION	0-39	6	6	7	7	7	8	8	8	9	9	9
ARRIVAL	0-95	0	0	0	0	0	0	2	2	2	4	4
TYPE	0-3	0	0	0	0	0	0	0	0	0	0	0
OBJECTIVE	0-23	0	0	0	0	0	0	22	22	18	18	18
SMALL ARMS	0-31	2	2	2	2	2	2	2	2	2	2	2
ARTILLERY	0-31	5	10	8	6	7	5	10	7	5	10	6
TROOP STREN.	0-31	16	17	17	19	21	16	18	21	17	21	22
MOVEMENT	0-15	6	6	8	6	6	8	6	6	8	6	6
BATTERY STR.	0-15	3	3	3	3	3	3	3	3	3	3	3
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	5	3	7	5	4	6	6	5	7	4	5
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	5	5	4	4	5	6	5	5	5	5	5
REGIMENTS	0-7	4	4	5	4	4	5	5	5	5	4	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

KONIGGRATZ - Brigades (Cont.)

UNIT NUMBER	1-127	67	68	69	70	71	72	73	74	75	76	77
UNIT I.D. (Full)	[9]	Gordon	Medem	Bothmer	Valentini	Avemann	Wedell	Pfuel	Weyhern	Ramm	Lilienthal	Koblinski
UNIT I.D. (Abbr)	[3]	Gor	Med	Bot	Val	Ave	Wed	Pfu	Wey	Ram	Lil	Kob
MAP LOCATION	(x,y)	14,1	13,0	13,0	11,2	8,3	9,2	0,7	0,7	2,0	2,0	0,14
CORPS	0-15	0	0	0	0	0	0	0	0	9	9	0
DIVISION	0-39	10	10	10	11	11	11	12	12	0	0	13
ARRIVAL	0-95	0	2	2	0	0	0	5	5	7	9	2
TYPE	0-3	0	0	0	0	0	0	2	2	3	3	0
OBJECTIVE	0-23	0	12	12	0	0	0	22	22	22	22	2
SMALL ARMS	0-31	2	2	2	2	2	2	3	4	0	0	2
ARTILLERY	0-31	0	0	0	5	9	7	8	0	7	10	5
TROOP STREN.	0-31	18	19	20	16	18	16	24	17	6	6	16
MOVEMENT	0-15	8	6	6	8	6	6	9	9	4	4	8
BATTERY STR.	0-15	0	0	0	3	3	3	3	0	12	12	3
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	7	6	4	6	3	4	4	5	3	3	6
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	6	5	5	6	5	5	5	5	4	4	5
REGIMENTS	0-7	5	4	4	5	4	4	5	3	3	3	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

UNIT NUMBER	1-127	78	79	80	81	82	83	84	85	86	87	88
UNIT I.D. (Full)	[9]	Conrady	Schwartz	Hiller	St'ckradt	Glasenapp	Senden	Wegerer	Goltz	Alvens'en	Obernitz	Kessel
UNIT I.D. (Abbr)	[3]	Con	Sch	Hil	Stu	Gla	Sen	Weg	Gol	Alv	Obe	Kes
MAP LOCATION	(x,y)	0,14	0,14	0,14	0,14	0,14	0,14	0,14	0,14	22,0	22,0	22,0
CORPS	0-15	0	0	0	0	0	0	0	10	0	0	0
DIVISION	0-39	13	14	14	15	15	16	16	0	17	17	17
ARRIVAL	0-95	4	7	7	9	9	10	10	12	8	8	8
TYPE	0-3	0	0	0	0	0	0	0	2	0	0	0
OBJECTIVE	0-23	2	2	2	2	3	2	2	2	17	17	17
SMALL ARMS	0-31	2	2	2	2	2	2	2	3	2	2	2
ARTILLERY	0-31	9	6	7	9	5	6	8	5	9	7	6
TROOP STREN.	0-31	16	25	22	21	24	22	27	21	21	20	18
MOVEMENT	0-15	6	6	6	6	6	6	6	9	8	6	6
BATTERY STR.	0-15	3	3	3	3	3	3	3	3	3	3	3
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	4	5	3	5	5	3	5	4	7	6	6
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	5	5	5	5	5	5	5	6	7	7	7
REGIMENTS	0-7	4	4	4	4	4	4	4	3	5	5	5
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

UNIT NUMBER	1-127	89	90	91	92	93	94	95	96	97	98	99
UNIT I.D. (Full)	[9]	Prit'witz	Budritzki	Loen	Pape	Bredow	Malotki	Boswell	Barnekow	Hanenfelt	Hoffmann	Ruville
UNIT I.D. (Abbr)	[3]	Pri	Bud	Loe	Pap	Bre	Mal	Bos	Bar	Han	Hof	Ruv
MAP LOCATION	(x,y)	22,0	22,0	22,0	22,0	22,0	22,0	22,0	22,0	22,0	22,0	26,1
CORPS	0-15	0	0	0	0	0	0	0	0	0	0	0
DIVISION	0-39	18	18	18	19	19	20	20	20	21	21	22
ARRIVAL	0-95	9	9	9	10	10	11	11	11	6	6	6
TYPE	0-3	0	0	0	0	2	0	0	0	0	0	0
OBJECTIVE	0-23	17	17	17	17	17	17	17	17	17	17	7
SMALL ARMS	0-31	2	2	2	2	3	2	2	2	2	2	2
ARTILLERY	0-31	9	6	10	6	4	6	9	5	5	7	6
TROOP STREN.	0-31	17	25	19	31	20	25	26	28	30	29	12
MOVEMENT	0-15	8	6	6	8	9	6	6	6	6	6	6
BATTERY STR.	0-15	3	3	3	6	3	3	3	6	3	3	3
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	6	5	6	6	5	5	3	6	5	2	4
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	7	7	7	6	5	5	5	5	5	5	5
REGIMENTS	0-7	5	5	5	5	4	4	4	4	5	5	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

KONIGGRATZ - Brigades (Cont.)

UNIT NUMBER	1-127	100	101	102	103	104	105	106	107	108	109	110
UNIT I.D. (Full)	[9]	Kaminski	Below	Horn	Tiedemann	Witlich	Wnuck	Witzleben	Borstel	Kameke	Oertzen	Hohenlohe
UNIT I.D. (Abbr)	[3]	Kam	Bel	Hor	Tie	Wit	Wnu	Wit	Bor	Kam	Oer	Hoh
MAP LOCATION	(x,y)	26,1	26,1	26,1	26,1	26,1	26,1	26,1	26,1	26,1	26,1	26,1
CORPS	0-15	0	0	0	0	0	0	0	0	11	11	11
DIVISION	0-39	22	23	23	24	24	25	25	25	0	0	0
ARRIVAL	0-95	6	8	8	9	9	10	10	10	11	11	11
TYPE	0-3	0	0	0	0	0	2	2	2	3	3	3
OBJECTIVE	0-23	7	7	7	7	7	7	7	7	7	7	7
SMALL ARMS	0-31	2	2	2	2	2	3	3	4	0	0	0
ARTILLERY	0-31	6	6	5	6	9	8	5	0	10	7	6
TROOP STREN.	0-31	16	29	22	28	27	19	17	16	6	6	6
MOVEMENT	0-15	6	6	6	6	6	9	9	9	4	4	4
BATTERY STR.	0-15	3	3	3	3	3	3	3	0	12	12	12
SHATTERED	0-1	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	6	5	6	4	5	5	4	3	3	2	3
COHESION	0-7	7	7	7	7	7	7	7	7	7	7	7
EXPERIENCE	0-7	5	5	5	5	5	5	5	5	4	4	4
REGIMENTS	0-7	4	5	4	5	5	3	3	2	3	3	3
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

KONIGGRATZ - Corps

CORPS NUM.	1-39	1	2	3	4	5	6	7	8	9	10	11
CORPS I.D.	[9]	Gallas	Thun	Ernst	Festeticz	Ramming	Leopold	Gablenz	Saxony	Frederick	Bitt'feld	Blum'thal
MAP LOCATION	(x,y)	24,22	22,7	13,8	21,9	18,13	22,13	13,12	8,19	3,0	0,14	22,0
TYPE	0-1	0	0	0	0	0	0	0	0	0	0	0
ARRIVAL	0-95	0	0	0	0	0	0	0	0	0	4	8
ORDER	0-2	2	1	1	1	2	1	1	1	0	0	0
OBJECTIVE #1	0-23	0	12	6	4	0	8	21	15	3	2	16
OBJECTIVE #2	0-23	0	0	0	0	0	0	0	0	14	19	20
MOVEMENT	0-15	6	6	6	6	6	6	6	6	9	9	9
DAILY COMM.	0-15	0	0	0	0	0	0	0	0	0	0	0
LEADERSHIP	0-7	4	2	5	4	2	1	4	5	6	5	5
STAFF	0-7	2	2	2	2	2	2	2	4	7	6	7
STRENGTH	0-7	3	3	3	3	3	3	3	3	4	2	4
LIKELIHOOD	0-7	7	7	7	7	7	7	7	7	7	7	7

KONIGGRATZ - Artillery

ARTILLERY #	1-31	5	6	7	8	9	10
ARTILLERY I.D.	[11]	4lb S'bore	6lb S'bore	12lb S'bore	4lb Rifle	6lb Rifle	12lb Rifle
RANGE	0-5	2	3	3	3	4	4
RATE OF FIRE	0-7	3	3	2	4	4	3
EFFECTNESS	0-7	1	3	4	3	5	6
PENETRATION	0-7	0	1	2	3	5	6

Continued from p. 9

In the south, the Army of the Elbe continued in textbook fashion. The Saxons had taken up strong positions on the heights at Problus, Nieder-Prim and Ober-Prim but Von Bittenfeld carefully marched his troops around them behind covering ridges and woods and in mid-afternoon launched attacks on both ends of their lines.

The Saxons were forced back in some disorder but soon rallied to a position slightly further back in the wood of Bor. They were then ejected from this wood to the heights behind it. All this took most of the afternoon and, about 4 pm, while Von Bittenfeld was reorganizing his men for further efforts, the Saxons received the order to retreat and did so in good order.

The southern part of the battlefield was almost a private fight between the Army of the Elbe and the Saxons. Both sides performed quite well, with the decision going to the Army of the Elbe on points but the overall effect on the battle was small. It was in the north that the Austrian disaster occurred.

As early as 10 am, Benedek learned of the offensive movements of the 4th and 2nd Corps. He immediately ordered them back to their original positions. He received a reply to the effect that the attack was going well and there was hope of a victory on the Prussian left. A second order, in more forthright terms, repeated the order which reached his commanders about noon. At the same time Benedek received a telegram informing him that a strong column of Prussian troops had passed Salney, to the north.

Count Thun, commander of the 2nd Corps obeyed his order and had started

KONIGGRATZ - Objectives

OBJ. NUMBER	1-23	1	2	3	4	5	6	7	8	9	10	11
OBJ. NAME	[11]	Koniggratz	Nechanitz	Sadowa	Maslowed	Nedelist	Chlum	Rodow	Stosser	Libcan	Dohalicka	Milowitz
MAP LOCATION	(x,y)	24,22	4,16	10,6	18,6	21,9	16,9	25,3	17,20	9,24	10,9	3,0
START (N)	1-95	1	1	1	1	1	1	1	1	1	1	1
STOP (N)	1-95	16	16	16	16	16	16	16	16	16	16	16
VPs/TURN (N)	0-255	10	1	1	3	4	4	2	5	5	2	0
VPs AT END (N)	0-255	50	10	10	10	15	15	10	25	25	10	1
MANEUVER (N)	0-15	0	5	5	5	0	0	5	0	0	0	0
START (S)	1-95	1	1	1	1	1	1	1	1	1	1	1
STOP (S)	1-95	16	16	16	16	16	16	16	16	16	16	16
VPs/TURN (S)	0-255	0	2	2	2	1	1	1	0	0	1	0
VPs AT END (S)	0-255	1	25	25	25	25	25	25	5	5	25	0
MANEUVER (S)	0-15	0	0	0	0	0	0	0	0	0	0	0

OBJ. NUMBER	1-23	12	13	14	15	16	17	18	19	20	21	22
OBJ. NAME	[11]	Horenowes	Straselitz	Wsestar	Hradek	Sendrasitz	Racitz	Benatek	Placitz	Plotist	Trescowitz	Klenitz
MAP LOCATION	(x,y)	18,3	13,12	18,13	8,19	22,7	22,3	15,2	19,24	22,16	10,12	7,3
START (N)	1-95	1	1	1	1	1	1	1	1	1	1	1
STOP (N)	1-95	16	16	16	16	16	16	16	16	16	16	16
VPs/TURN (N)	0-255	3	5	10	10	5	2	1	10	10	2	0
VPs AT END (N)	0-255	15	25	50	25	25	10	10	50	50	10	1
MANEUVER (N)	0-15	5	0	10	0	0	0	0	0	0	5	0
START (S)	1-95	1	1	1	1	1	1	1	1	1	1	1
STOP (S)	1-95	16	16	16	16	16	16	16	16	16	16	16
VPs/TURN (S)	0-255	1	1	0	0	1	1	2	0	0	1	5
VPs AT END (S)	0-255	25	25	5	5	25	25	25	1	1	25	25
MANEUVER (S)	0-15	0	0	0	0	0	0	0	0	0	0	0

KONIGGRATZ - Small Arms

SMALL ARMS #	1-31	1	2	3	4
SM. ARMS I.D.	[11]	Rifle Mus	Breechl'der	Carbine	Sabre
RANGE	0-1	1	1	0	0
FIRE VALUE	0-7	2	6	2	0
MELEE VALUE	0-7	6	6	5	7

to move by 12.30pm. Mollinary, commanding the 4th, rode over to headquarters to request permission to continue the attack (he was refused) and he did not start moving his troops until about an hour later.

It was now too late to move the troops back to their original positions. Between noon and 2pm, the Prussian Guard arrived and took, first the village of Horenowes and, by 2pm the village of Maslowed. The 11th Division continued south from Racitz, took Sendrasitz, Rodow and Trotina. The Austrians were thus attempting to manoeuvre across the face of the Prussian troops.

The Guard were not content to rest on their laurels and continued onwards taking the highly strategic village of Chlum by 2.30 and rolling on to Rosberitz by 3.00 pm. The 11th Division meanwhile took the village of Nedelist, taking the strong garrison by surprise as well they might have been.

The 2nd and 4th Corps, taken unexpectedly on the flank put up only a feeble resistance to this attack which in fact only consisted of 5 battalions (2 Guard, 2 11th Division and a single battalion from the 12th Division). Benedek still had at this time two intact Corps (the 1st and the 6th), two cavalry divisions and a strong artillery reserve. A force one would have thought capable of dealing with any five battalions.

A counter-attack on Rosberitz forced the Guard back to Chlum but when the Austrians attempted to follow up they were met by heavy artillery and rifle fire which drove them back to Rosberitz. Matters remained stationary here until, about 4.30 pm the advance battalions of the 1st Corps finally arrived. The Prussians attacked Rosberitz again and regained it.

The inglorious Austrian 2nd Corps meanwhile had continued re-deploying and obviously wasn't going to stop re-deploying until it reached the other side of the Elbe. Benedek had had enough and gave the general order to retire.

The Austrian Army had lost 150 guns and 20,000 prisoners as well as a huge quantity of materiel. It was forced to retreat before the Prussians in order to save itself, losing the campaign as well as the battle.

OBSERVATIONS

Like many battles, Königgrätz was won by the side that made the most productive mistakes. It was Prince Frederick Charles' atrocious placement of the 7th Division that made the Prussian victory possible. It induced the Austrians to turn their line and present an exposed flank to the advancing 2nd Army.

Of itself, however, this would have been insufficient to cause disaster. Benedek could easily have moved one of his reserve Corps up to cover the flank, had he posted the proper scouts and been aware of the real situation. It was this failure of intelligence that led him to attempt to manoeuvre the 2nd and 4th Corps across the face of the advancing 2nd Army, inviting the entire disaster to happen.

The Austrians also failed to use their troops to the best advantage. Although

their rate of rifle fire was inferior, they had superior range in both small arms and artillery and could have used both to great advantage. Instead, they made every attempt to rush to close range when attacking, when the rapid-firing Prussian needle gun came into its own. Lack of a Divisional structure also made it difficult to launch attacks in anything other than a piecemeal fashion.

This is not to say that the Prussian army did not have its faults. It was particularly bad in its use of artillery and, in fact, it revised its whole artillery system as a result of this campaign. On the whole, however, the Prussian army was both better structured and better trained than its Austrian opponents. When all the mistakes had canceled out, this probably made the critical difference.

A NOTE ON THE SCENARIO

This is the first time we have looked at a European battle using the *Decisive Battles* system. At Königgrätz there were upwards of 200,000 men on each side who took part (or should have) in the battle. That's about three times the number who fought at Gettysburg; and on a smaller battlefield! European armies still employed highly trained shock cavalry and went into battle shoulder-to-shoulder, much as they had in the Napoleonic period. In fact, so impressed was the Austrian General Staff with the French successes against the Italians in 1859 that they actively discouraged musketry practice and concentrated on massed bayonet attacks as the best method for breaking up the enemy.

We have decided to double the manpower scale (i.e. about 180 troops equal 1 strength point instead of the usual 100 troops) to better reflect the formations used. Shock cavalry are simulated by reducing the range value of their small arms type to 0. Terrain scale is about 600 yards to the hex. Prussian units are North, Austrian units are South.

Please let us know what you think about this scenario. There were plenty of European battles fought between 1856 and 1870 which are well suited to this system.

CREATING THE SCENARIO

If this is the first time you have tried to transfer a magazine scenario onto a save-game disk, we recommend you follow these directions. The letters in parentheses after each heading refer to the corresponding section in the Decisive Battles manual. There is some additional information for IBM users at the end of this section. Be sure to read it, especially if you have an EGA/VGA card and want to take advantage of our "full map" graphics.

Preparing the Disk [3]. Boot up the Master Disk and select <CREATE> from Menu H. Select <SCENARIO> from Menu B. <LOAD> any historical scenario. You have been processed through to Menu J. Select the <DISK> line from that menu.

If you have one disk drive, remove the Master Disk and replace it with a blank disk. If you have two drives, remove the Scenario Disk from the second drive and replace it with a blank disk.

Select <FORMAT> from the on-screen menu. Once this is done, select <SAVE> from the menu and store any of the historical scenarios in any unused save-game location. This procedure prepares the template on which we will build the *Königgrätz* scenario.

The WarPlan™ menus are displayed on the back of the game menus card. Refer to this when necessary.

Title [5c]. There are three lines of text for the title:

Koniggratz
The Clash of Eagles
July 3rd, 1866

Go back to Menu J and re-save the game in the same location.

Map Size [5a(i)]. The top left sector is 0. The bottom right sector is 8.

Define Terrain [5a(ii)]. The accompanying Terrain Effects Chart lists the details of the active terrain types for this scenario. Select (or paint) the icons of your choice to represent the eight terrain types.

Create Map [5a(iii)]. Select the <CLEAR> line from Menu J. Clear only the map. Do not clear the data. Use the accompanying map to build up the screen map. Do not forget to assign control to each hex. Prussian (North) forces control all hexes north-west of the front line. .

Save the game again. How often you save really depends on how lucky you feel. After several major disasters, I choose to save after each section is completed.

Limits [5b(i)]. Before you can set the force limits, you must go through all the Prussian units in the data base and clear them. The force limits are as follows; corps (9), divisions (6), brigades (54). Apple II and C64 users must also set the artillery weapon limit to 5.

Weapons [5b(ii)]. Consult the Small Arms and Artillery Tables and enter the data as shown.

Forces[5b(iii)]. Edit the North (Prussian) Army HQ as follows. (William) (Moltke) (Prussian) (Army) (3,1) (0) (14) [Wsestar] (1) [Koniggratz] (3) [Sadowa] (2) [Nechanitz] (9) (7) (4) (7).

Edit the South (Austrian) Army HQ as follows. (Benedek) (blank) (Austrian) (Army) (24,21) (0) (0) (0) (8) [Stosser] (20) [Plotist] (6) (2) (5) (3).

The objectives assigned to the Army HQs will not appear on the screen until after the objective data base has been entered.

The North has 3 corps. The South has 8 corps. Consult the Corps Table and enter the data as shown.

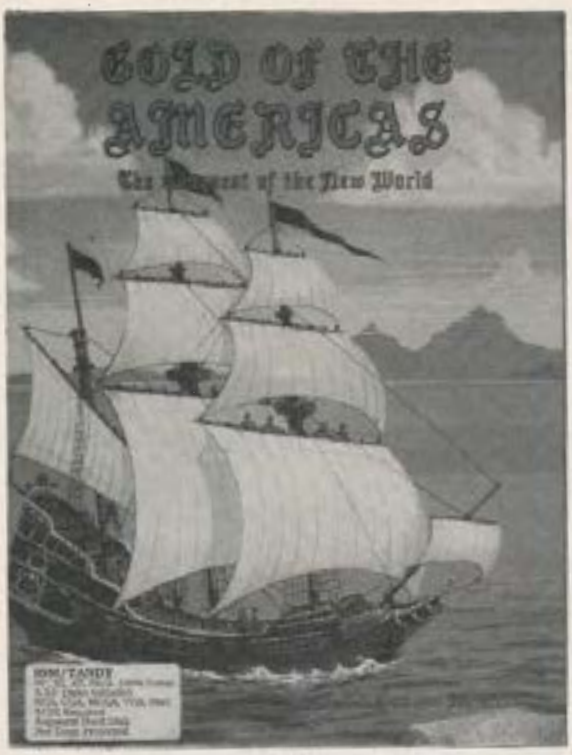
The North has 20 divisions. The South has 5 divisions. Consult the Divisions Table and enter the data as shown.

The North has 57 brigades. The South has 53 brigades. Consult the Brigades Tables and enter the data as shown.

Objectives [5b(iv)]. There are 22 objectives. Consult the Objectives Table and enter the data as shown.

Scenario Setup [5d(i)]. Enter the following data. Date (3), Month (7), Year (66), Century (18), North Maximum Hex Movement is (4,5,5,2,4), South Maximum Hex Movement is (3,4,4,3,2), neither side is encamped or entrenched (the latter introduced only in Volume II), and VP awards are 25 per leader and 3 per 100 men. IBM users should note the combat value for this scenario is 3 for north and south.

Continued on p. 44



The Confessions of Don Stephano

As Recorded on Behalf of the Office of the Inquisition

by Stephen Hart

After 300 years of (mostly) loyal service to the Crown, Don Stephano returns to his native Barcelona. Now over 330 years old he contracts a serious heart disease, falling in love with the daughter of the influential Don Quixand. Unable to cope with the 314 year age gap between the couple and likewise unable to dissuade Don Stephano from his amorous course, Don Quixand arranges for our aging hero to be arrested on a trumped-up charge...

Clerk of the Court: Don Stephano Y Sangria. You stand before this court charged with the heinous crime of cheating at *Gold of the Americas*. How do you plead?

Don Stephano: Not Guilty!

Judge: The Court will recess for 3 days while Don Stephano is interviewed by the Inquisitorial Torturer.

Don S: Ah, my Lord... if I might be permitted to change my plea?

Judge: Yes, Don Stephano?

Don S: Guilty as charged, my Lord.

Judge: Thank you, Don Stephano. Now confess. What is the secret control key?

Don S: There isn't one, my lord.

Judge: The Court will recess for 3 days while Don Stephano is interviewed by...

Don S: Wait, my Lord! I'll confess. It's just that I cheated in a much more subtle manner... I utilised the rules to their best advantage.

Judge: A novel approach. Very well. Mr Clerk, record this. Proceed, Don Stephano.

Don S: Ultimately, my Lord, it all comes down to money. The man with all eight of the pieces of eight will win. Power grows out of the end of a dubloon. God fights on the side of the big bullions.

Judge: This is all very well, Don Stephano, but every time I get some money together a fat gentleman from his Majesty's (long may he live) Tax Department takes it all away.

Don S: You have to manipulate the Secret Funds, my Lord.

Judge: Don Stephano! I am shocked that you should even think of a Judge of the Office of the Inquisition manipulating Secret Funds. Tell me more.

Don S: Very well, my Lord. Let me detail the ways you can get money into the secret funds.

Firstly there are trading ships. One quarter of all revenue from Trading Ships is siphoned off... $100 per ship.

Secondly there are privateers. Two thirds of all Privateer returns goes to the Secret Funds; that's $200 per successful privateer.

Thirdly, all money from raids goes into the Secret Funds.

And finally you can Exploit your Colonies. The ideal is to exploit level 3 or 4 colonies with lots of slaves and lots of gold and minerals.

So you see, my Lord, that if you can keep 5 Trading ships functioning that's $500 in the Secret Funds - enough to buy something useful next turn. If you then do a bit of raiding and exploit the occasional colony, you have lots of spare money.

Judge: What about exploring new provinces?

Don S: I'm afraid that's all taxable, my Lord. You explore the rich provinces at the beginning (Mexico and Peru have always been my favourites) and the money gives a kick-start to your economy. The more armies you send with an explorer, the more loot you are likely to get and the less likely the intrepid explorer is to end up in a cooking pot. This is especially relevant with the Aztecs (Mexico), the Incas (Peru) and the Potiguar (Pernambuco). There's something about Florida as well. My explorers always seem to vanish into the swamps.

Judge: Yes, so do mine. However, I'm not sure about this exploiting business, Don Stephano. The last time I played the game I had 8 provinces go Independent on me.

Don S: If you'll pardon the expression, my Lord, you have to be judicious about which provinces you exploit. The higher the level of a colony, the more chance that it will lose a level of loyalty if you don't Placate it. Thus, exploiting high level colonies, even with slaves, has to be done very carefully.

Level 1 and 2 colonies never lose loyalty. This is very important to remember. Of course, the population in them tends to die out so you can't have everything. One very dirty trick is to form a penal colony - find a province with a maximum level of 2, fill it with seven colonists and exploit every turn. You do lose colonists this way so you can only do it towards the end of the game when you have spare colonists.

Judge: What do you mean, spare colonists? Enthusiasm for colonising the

New World seems to drop off alarmingly towards the end of the game.

Don S: That's another trick, my Lord. At colony levels 5, 6 and 7, colony populations can actually increase. If your colony already has the maximum number of colonists (7) then any increase appears free next turn. What you have to do is build two or three colonies up very high, Placate them every turn so that they don't go Independent, and siphon off the extra population.

Judge: Hmm! Let's return to this matter of secret funds. My privateers never seem to bring in much money, whereas I'm always being annoyed by unfriendly ones from other players.

Don S: You have to realise that privateers are much more efficient against countries with whom you are at war. I think the novelty of having the moral high ground inspires the lads on the ships.

Judge: I thought they went for everyone impartially.

Don S: Not so, my lord. Those would be pirates. His Majesty's (long may he live) government could never employ pirates. When your opponents start building privateers you have to build warships to take them out. This is an expensive business but it pays good returns in the long run, keeping the seas free for your traders, which (as I said) puts money in the secret funds.

Judge: What about raids then?

Don S: These are very useful, my lord. Not only do they put money in the secret funds and confound his Majesty's (long may he live) enemies but there is a chance that a successful raid will cause the colony's loyalty to drop.

Judge: That phrase "successful raid", Don Stephano. My raids don't always seem to work.

Don S: You can't guarantee everything, my lord. Your best chance is with a highly rated explorer, with as many armies as possible, against a colony that borders on one or more of yours. The defenders are helped by the level of the colony, the number of armies present and the number of colonists. Colonists don't fight as well as armies but they all turn out to do their bit.

Judge: Well I think that explains how to get money into the secret funds. The only problem now seems to be with his Majesty's (long may he live) Audits Department which tends to come and take it all away.

Don S: Well, my lord, the Audits Department of course knows everything about everybody but they can't be bothered doing an audit if they aren't going to get much money out of it. If you keep the Secret Funds below $4,000 you should be pretty safe. $5,000 is usually OK but after that it gets dangerous. The other thing is, if you don't pay all your legitimate taxes, they might audit you out of sheer bloody-mindedness.

Judge: Dear me. Perhaps I should pay my taxes more often.

Don S: It's a good idea, my lord. Your support from Europe tends to be greater if you do. It's important to get as much as possible from Europe, particularly in the early stages of the game. You can not, for instance, ever purchase more than one colonist, so the number of volunteers is vital.

Judge: Why is it that the English and French players get free Privateers and I don't?

Don S: That's just the way it is, my lord. Only the perfidious English and the diabolical French would ever consider anything so low as publicly funded privateers.

Judge: Now, Don Stephano, you have explained the details of manipulating the Secret Funds, but it seems to me that you have said very little about how the legitimate side of government works - managing colonies and so forth. *(pause)* Don Stephano!

Don S: Sorry, my lord. That word "legitimate" threw me for a moment. Let me start with actually founding a new colony. Ideally, you want to have at least three colonists to give the colony its best chance of actually surviving its first turn. Perfidious English and diabolical French players have been known to try and form a colony in the first ten turns with only one colonist, placating the natives and hoping they all die off. It's a risky business although it can be irritating if they succeed in doing this.

If the natives are pretty tough (4 or above) the best method in a normal colony is to send in three soldiers (two if you feel lucky) and Exploit. Some natives will die off as they attempt to revolt against the march of civilisation and, with luck, a plague will get most of the rest. If there are still natives left on the second turn, ignore just one or two (they probably won't revolt if you don't Exploit) and Develop, otherwise Placate and wait for your smallpox to do its stuff. (This is assuming you don't have spare soldiers - you hardly ever do).

The decaying Don Stephano
He blabbed before the Inquisition even got near him

After this the choices are less clear. I like to develop two or three colonies up to level 6 or 7 so that I can breed colonists (as a mentioned before) but for the rest I tend not to do any Development over level 3 or 4. The problem is, you see, that the more resources you pour into a colony and the more it develops, the less grateful the perverse colonists are and they lose loyalty fast. Towards the end of the game I have a final development cycle to get as many victory points as possible.

Still, I am bound to say that my Portuguese friend, Dom Daniel Sao Biscuits, disagrees with this and develops his colonies early. At higher levels, colonies are much harder to raid and invade successfully and this is very useful. I think it's a matter of taste.

Judge: What of the Perfidious English and the Diabolical French?

Don S: They don't have any taste, my lord.

Continued on p. 43

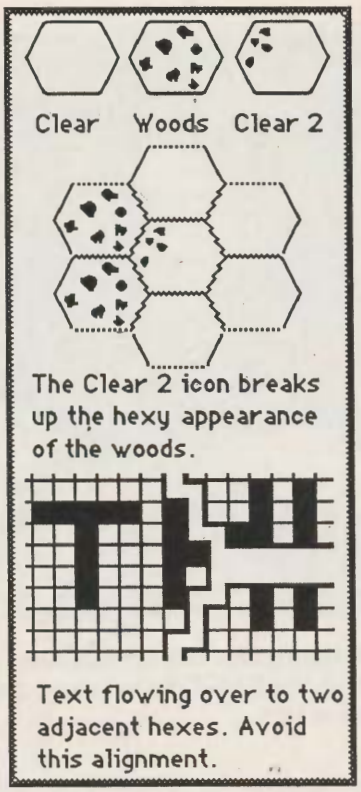

Clear
Woods
Clear 2
The Clear 2 icon breaks up the hexy appearance of the woods.
Text flowing over to two adjacent hexes. Avoid this alignment.

Fig 1

Making Maps

A Look at Using WarPlan™ and WarPaint™ on the Macintosh

by Danny Stevens

The Battlefront program on the Mac was no simple job. It was two years in the making and much of that time spent designing the interface. When we first decided that our game should have the features of any professional business package we knew the task was going to be large, what we were unsure of was who would actually use the design kit built into it? Was the effort worth it? Would we ever really know?

Well, now we know. SSG has been flooded with scenarios designed by owners of *Halls of Montezuma* and *Panzer Battles*, using WarPlan™ and WarPaint™, and we were surprised at the high proportion of color Mac users out there. Most notably we would like to commend the efforts of Denis Minamora from Sacramento, who painted up every *Battlefront* scenario published in this magazine and kindly sent us copies. Also Simon Hiscock and the team at Empire Ridge P/L from Victoria who have created several of the scenarios with graphics that have often surpassed our own and who, in the process, helped us iron out a few bugs. (Yes, I'm working on *Battlefront* 1.3, more about that later).

With all this activity, it's time I cleared up a few things, gave some hints about making a good looking scenario and revealed the future! Let us start by talking about roads (Where we're going, we don't need roads!).

Roads

When you first enter the WarPlan™ environment you see a tool panel at the left of your screen with a number of icons representing several different types of road that you may select to paint on your map. What does each type of road do?

Real Roads. This road represents a well surfaced road that the troops will use both for its speed and its use in navigation.

Ersatz Roads. Physically no different from a real road, these roads provide the normal speed benefit *but* the troops will not consider these roads when navigating to a destination. These represent roads that were actually present on the battle field but which would be misleading to follow for the purposes of the current battle.

Hidden Roads. There is no road here, nothing more than a trail or a "known path" through a forest. These roads provide no speed benefit over the underlying terrain but they do indicate to the troops a good path to take when navigating to a destination.

The Road Mask. If you don't want the roads in a hex to be visible this tool is used to hide them away. I use this extensively to hide roads that are placed on the map to aid the movement of units, that did not exist as actual roads in the battle, or to allow me to manually draw the roads in the hex, winding their way around hill tops and so on.

Hexes

Two things impinge on designing hex images for a map. One is the desire to create hex images that can be reused over and over, reducing the workload. The other is creating images that blur the exact edge of hexes. Maps look so much nicer if the underlying hex structure is not prominently visible on the map. A standard method for this is to create a number of terrain merging hexes, say from clear to woods, but beware.

If you want to create join images that cover every possible combination between hexes of two different terrain types you need sixty four different icons! With such things as coastline this may be unavoidable but with fuzzy terrain such as woods I have developed a system of edge images that allow a single icon to cover a number of different situations effectively. (See fig 1.)

It is essential to put some variance into terrain that covers vast areas of the map otherwise it takes on a nasty "repeating pattern" appearance. Normally I will create two or three different images for the same terrain type in this

Continued on p. 42

ARDENNES

The Battle of the Bulge

December 16th - 31st, 1944

A Scenario for the Battlefront Game System

by Ian Trout

Following upon the successful Allied breakout from the Normandy peninsula in August of 1944 and the headlong pursuit of the beaten German armies all the way back to their homeland, Germany suffered disaster after disaster. Finland, Rumania and Bulgaria all defected and, at Soviet direction, declared war upon their former master. Army Group Centre was smashed in western Russia and 6th Army forced to surrender in Rumania. Bomber Command and the US 8th Air Force, by night and by day, pounded away at the industry and communications of the Third Reich.

Yet notwithstanding all of this, Hitler, perhaps inspired, as he often was, by the heroic exploits of Frederick the Great, decided as early as September 16th to "... Gegenangriff aus Ardennen, Ziel Antwerpen." (Counter-attack from the Ardennes, objective Antwerp.)

Three months later, Germany unleashed her final effort, the last gasp of a dying country...

By late November the western front had stabilized roughly along the 1939 German border. On the southern end, Patch's 7th Army reached the Rhine between Strasbourg and Karlsruhe but was not able to secure a bridge-head over it. Patton's 3rd Army had taken Metz and advanced to the line of the Saar River but had there run short of fuel and ammunition and been forced to suspend operations.

Hodges' 1st Army spanned the longest section of the front, from below Luxembourg north to Aachen. (Note that Aachen is just north of the area covered by the game map.) Furthermore, most of his troops were concentrated to the north where they were co-operating with the British 21st Army in the capture of Aachen and the proposed advance which would isolate Germany's principal industrial region, the Ruhr. The last element of Bradley's 12th Army Group, Simpson's 9th Army was concentrated for the Aachen attack.

The rugged terrain between Trier in the south and Losheim, the infamous Eifel-Ardennes region which had been the site of the French disaster in 1940, was thinly held by just two American divisions; the 28th and the 106th. How they came to bear the brunt of the German offensive was a combination of Hitler's peculiar logic, atrocious weather and the failure of Allied intelligence.

German planning began in the final days of September. Hitler had managed to convince himself, if not most of his general staff, that the desperate situation confronting Germany on all fronts had been stabilized and that now was the time to prepare a counter-offensive which would restore the initiative, at least on one front.

By tortuous logic he decided the West Front offered the best opportunity and called for detailed operational plans for the employment of 20 to 30 divisions; in the event an optimistic estimate of the force that could be made available. These plans were forthcoming by October 9th and of the five submitted, only two were of any interest to the Fuhrer.

Operation Holland envisaged a drive due west to capture Antwerp. Operation Lüttich (Liege) - Aachen would envelop and destroy the Allied armies in the Aachen area. Each plan required the use of all the troops available, yet Hitler ordered a revised plan which would combine both operations into a single grand design. Right from the start, it was manifestly obvious that there would never be enough men to get the job done.

Hitler's Chief-of-Staff, Alfred Jodl, produced the draft plan by October 11th, deceptively code-named Wacht am Rhein (Watch on the Rhine). Three armies under the direction of Heeresgruppe B (Army Group B) would carry out the attack. The strongest of these, Dietrich's 6th Panzer Army on the northern end of the line, would burst through the Allied positions and drive for the Meuse River bridges be-

Infantry from 6th Panzer Army

tween Liege and Huy. Supporting infantry would hold the right shoulder of the penetration along the line Monshau-Verviers-Liege, digging in defensively as soon as they were in place. Once replenished, the panzers would drive north to Antwerp and complete the entrapment of the Allied armies.

In the centre, von Manteuffel's 5th Panzer Army was to advance to the Meuse, securing bridgeheads between Huy and Namur. The supporting infantry would also cross the Meuse with the intention of protecting the left flank of the drive to Antwerp from any Allied interference coming from the Brussels area.

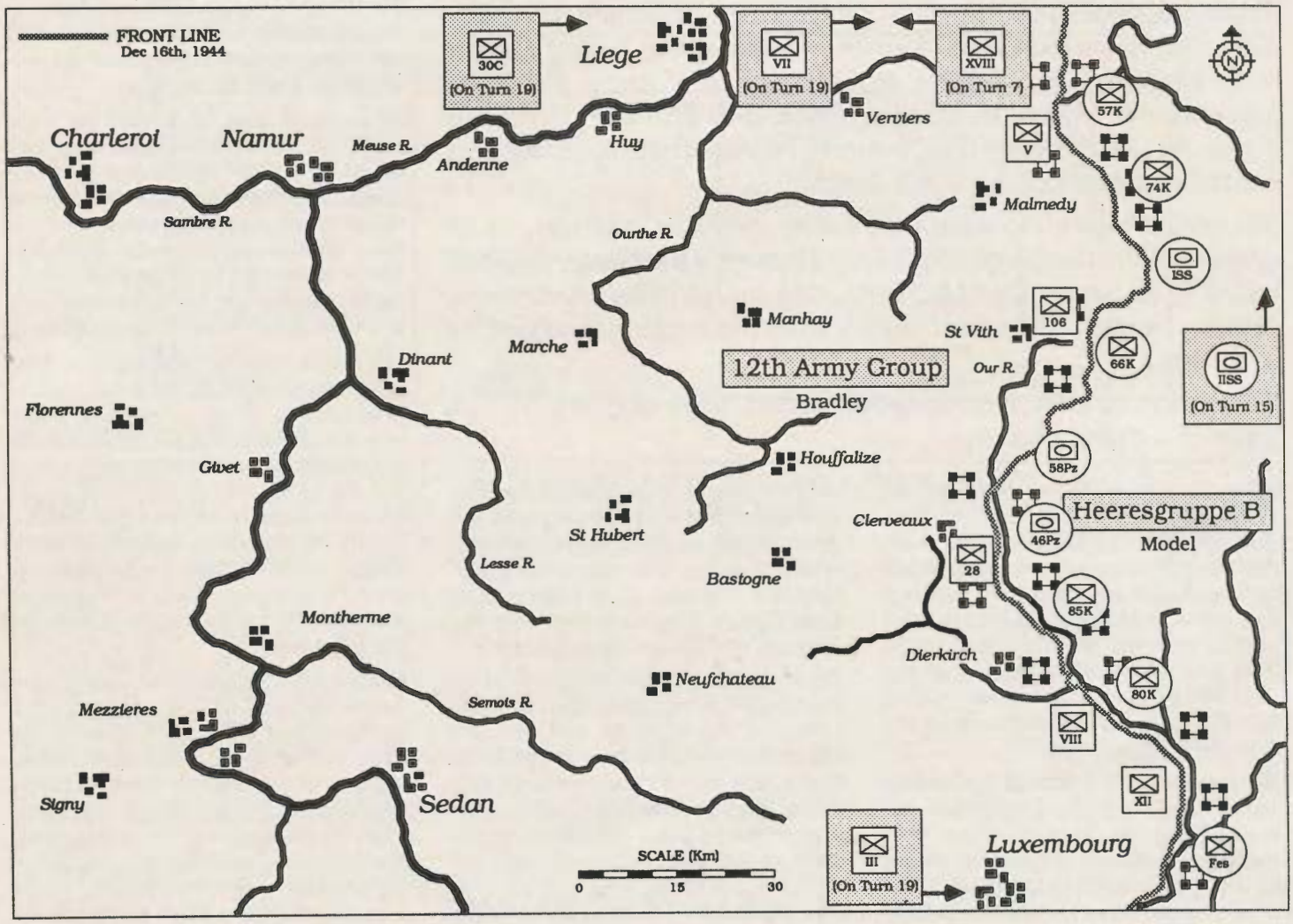
Finally, in the south, Brandenberger's 7th Army was to protect the southern flank from Allied counter-measures along the line Dierkirch-Neufchateau-Givet.

Hitler made very clear that nothing was to deter the panzer divisions in their dash to the Meuse. They were specifically forbidden from reacting defensively to Allied counter-attacks, nor were they allowed to get involved in any street fighting. Strongly held towns were to be by-passed.

The provisional date for the launch of the offensive was set at November 20th and exceptional secrecy was to surround all preparations for it.

Assembling the required forces in the face of the continuing Allied attacks at Aachen and on the Saar proved impossible. Refitting units were called upon temporarily to stiffen other areas while the enormous drain on fuel, ammunition and replacements prevented the assembling forces from being brought up to full strength.

O-Tag (start day) was postponed, first to December 10th and then to the 16th and even then, effective strength for most infantry divisions was barely 80% and the condition of the armoured



Situation Map for Scenario One

forces little better. In particular, there was a critical shortage of tanks resulting in the employment of less versatile tank destroyers in their place. With the exception of a few veteran divisions, the level of battle experience (and in some cases, simple basic training) was poor.

Heeresgruppe B's commander, Walter Model, though personally loyal, tried repeatedly to influence the Fuhrer to adopt a more realistic plan, specifically the encirclement and destruction of the Allied forces in the Aachen area. (Such a plan, if implemented, may have had some chance of success.) Hitler would have none of it though, and staked all upon a plan which was doomed from the very beginning.

Considering the difficulties created by complete Allied air superiority, it is remarkable that not only were the troops and supplies brought up to their starting positions, some from as far away as Norway and Poland, but that also this build up did not trigger a reaction from Allied intelligence.

On the morning of December 16th, achieving more or less complete surprise, the German attack got underway.

CREATING THE SCENARIO

This scenario is divided into two separate phases. The first covers the initial German breakthrough from the 16th through to the 25th. The second covers the Allied response and counter-attack from the 25th through to the end of December. Two separate OBs are provided, labeled (1) and (2) for use with the appropriate scenario. The remaining data displays are combined. Values in brackets refer to the second scenario. If there is only one value for a particular piece of information, then that value applies to both scenarios.

The front lines for both scenarios are shown on the game map. The forts shown on the game map are for the first scenario. For the second scenario, place forts in the following hexes - (31,2), (32,2), (32,4), (31,21), (34,22), (36,24), (35,25) and (34,27).

If this is the first time you have tried to transfer a magazine scenario onto a save-game disk, we recommend you follow these directions. The letters in parentheses after each heading refer to the corresponding section in any of the *Battlefront Game System* manuals.

Note that if you are building up the scenario from an IBM/Tandy version of the game, there are a couple of additional data entries to be made. These are noted where applicable. Furthermore, there is some additional information for IBM users at the end of this section. Be sure to read it, especially if you have an EGA/VGA card and want to take advantage of our "full map" graphics. Issue 14 of *Run 5* contains a detailed guide on the use of "full map" graphics on the IBM.

Macintosh users should follow the instructions in their game manual. In this issue, there is a detailed guide on *WarPaint*™ for Macintosh users.

IIGS users should follow the instructions in their game manual. There will be a detailed article on the use of WarPaint™ for the IIGS in Issue 16.

Preparing the Disk [3]. Boot up the Master Disk and select <CREATE> from Menu H. Select <SCENARIO> from Menu B. <LOAD> any historical scenario. You have been processed through to Menu J. Select the <DISK> line from that menu.

If you have one disk drive, remove the Master Disk and replace it with a blank disk. If you have two disk drives, remove the Scenario Disk from the second drive and replace it with a blank disk.

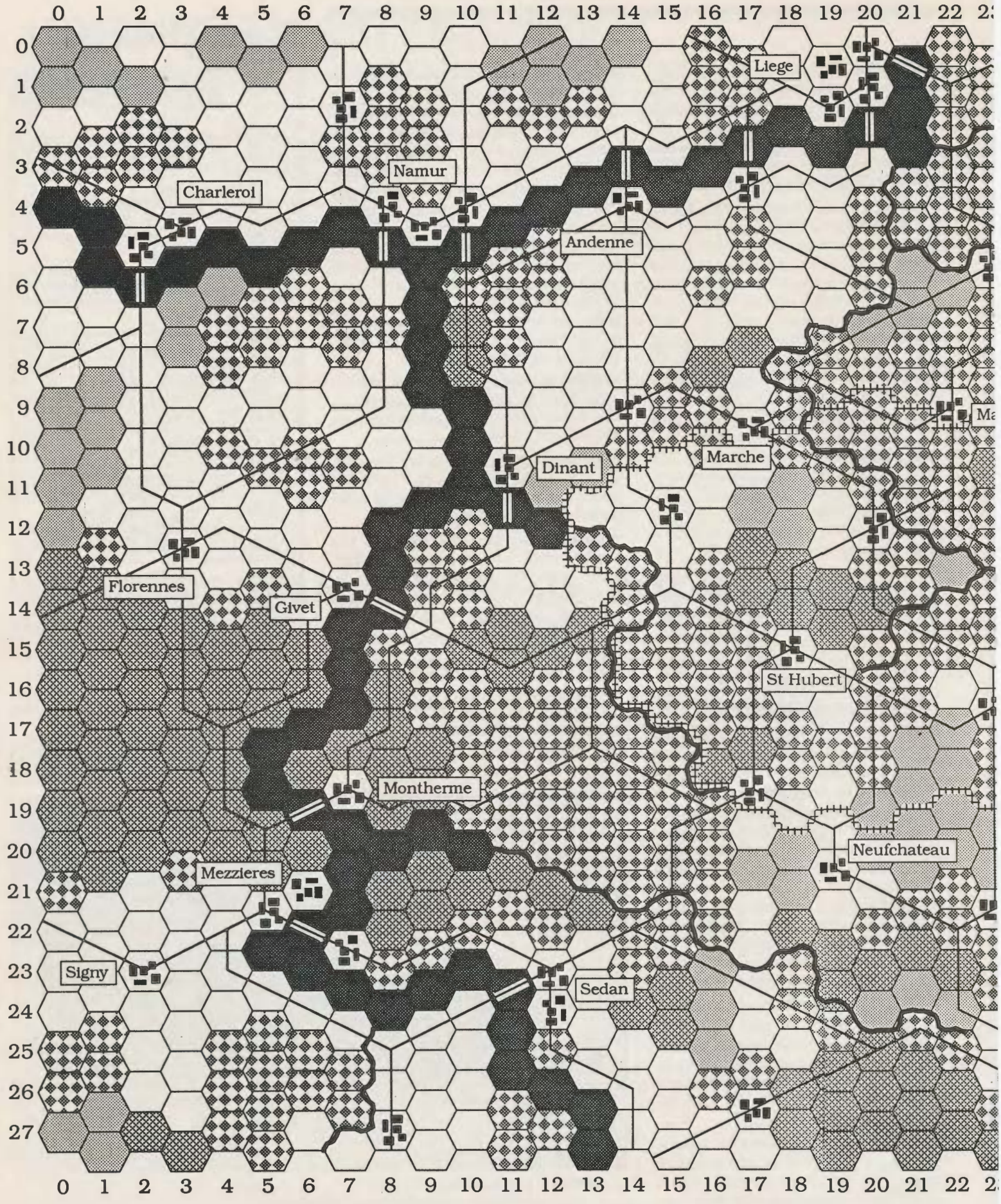
Equipment

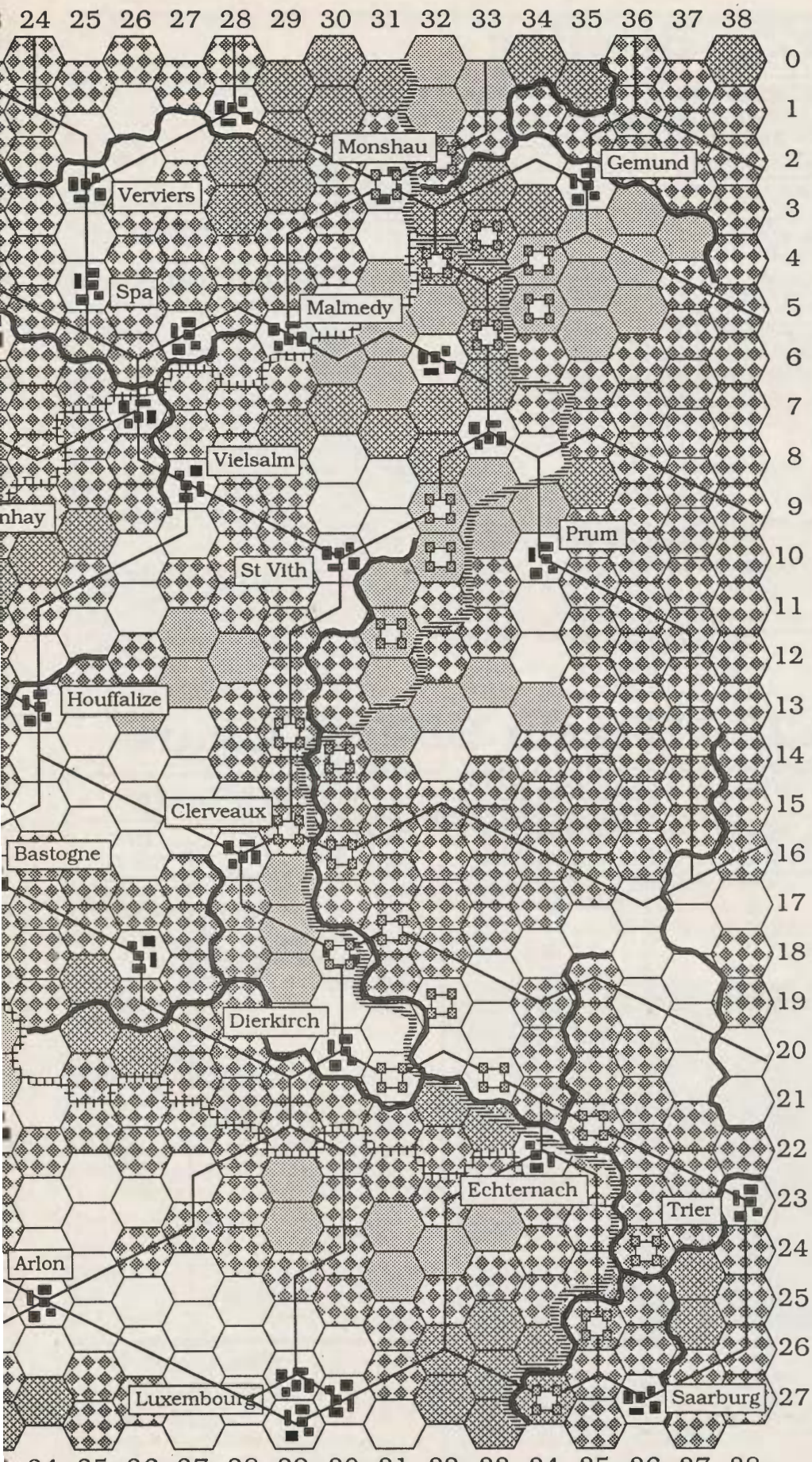
0	
1	Lorry
2	Firefly
3	Leg
4	Mxd Art
5	M4s
6	Constr'n
7	Para
8	M8s
9	H'Track
10	PzVs
11	Static
12	Rocket
13	Skorzeny
14	PzIVs
15	PzVIs
16	StuGIIIs

Select <FORMAT> from the on-screen menu. Once this is done, select <SAVE> from the menu and store the scenario in any unused save-game

Continued on p. 38

Patton to the Rescue
4th Armored Division tanks near Bastogne


Liege
Namur
Charleroi
Andenne
Dinant
Marche
Florennes
Givet
St Hubert
Montherme
Neufchateau
Mezzieres
Signy
Sedan



ARDENNES

- OPEN
- ROUGH
- WOODS
- WOODS/ ROUGH
- MAJOR RIVER
- MAJOR BRIDGE
- ROAD
- CITY
- FORT
- RIVER
- BRIDGE
- FRONT LINE (1)
- FRONT LINE (2)

ARDENNES (1&2) - Briefing

AXIS	ALLIED
SIDE [16]: GERMANY	SIDE [16]: ANGLO-AMERICAN
CORPS [16]: Heeresgruppe B	CORPS [16]: 12th Army Group
COMMANDER [16]: FM Model	COMMANDER [16]: Lt-Gen. Bradley

DAY	NIGHT	SUPPORT	DAY	NIGHT
12(8)	0(0)	QUANTITY (0-99)	20(30)	0(0)
2(1)	0(0)	RELIABILITY (0-3)	3(3)	0(0)
9(9)	0(0)	RATING (0-15)	9(11)	0(0)

AIR SUPERIORITY (0-7)

STATUS = 7(7)
RELIABILITY = 5(7)

STRONG ALLIED LIKELY (DEPENDABLE)

SCENARIO [16]
Ardennes (1) & (2)

BRIEFING [26]
The Battle of the Bulge
First Phase (Second Phase)
Dec 16th-25th, 1944 (Dec 25th-31st, 1944)

(0-3)	START =	0(0)
(1-31)	DATE =	16(25)
(1-12)	MONTH =	12(12)
(0-99)	YEAR =	44(44)
(0-20)	CENTURY =	19(19)
(1-16)	LENGTH =	10(7)
(0-3)	WEATHER =	0(0)
(0-7)	FORECAST =	0(6)
(0-7)	CLIMATE =	5(5)
(0-31)	MECH MIN =	7(7)

am
15th (25th) DEC 1944

PRECIPITATION
STORMY
ARCTIC

BRITTLENESS
(0-9) AXIS = 00 %
(0-9) ALLIED = 00 %

NIGHT CAPABLE
(0-1) AXIS = 0
(0-1) ALLIED = 0

ARDENNES (1&2) - Terrain Effects Chart

TERRAIN CODE (T0-T15)	TERRAIN NAME [10]	TERRAIN COSTS PER HEX		ATTACK EFFECTS		
		MECH (0-31)	NON-MECH (0-31)	ARM (0-7)	ART (0-7)	INF (0-7)
T0	Major River	-	-	-	-	-
T1	Open	3	1	7	7	7
T2	Rough	6	2	4	5	6
T3	Woods	6	2	4	3	5
T4	Woods/Rough	10	3	3	3	4
T5	-	-	-	-	-	-
T6	-	-	-	-	-	-
T7	-	-	-	-	-	-
T8	Bridge	5	2	7	7	7
T9	-	-	-	-	-	-
T10	-	-	-	-	-	-
T11	-	-	-	-	-	-
T12	-	-	-	-	-	-
T13	-	-	-	-	-	-
T14	-	-	-	-	-	-
T15	-	-	-	-	-	-
-	ROAD	1	1	N.A.	N.A.	N.A.
-	FORT	N.A.	N.A.	4	4	5
-	CITY	N.A.	N.A.	5	5	6
-	BRIDGE	3	1	5	7	6
-	RIVER	N.A.	5	4	7	5

ARDENNES (1&2) - Objectices & Misc.

I.D.	Name [11]	Map Loc [x,y]	Div. (0-3)	Def. (0-1)	Start (1-99)	End (1-99)	Pts/T (0-30)	Pts/E (0-255)
1(AX)	St Vith	30,10	1	0	1	39(27)	2	10
2(AX)	Dierkirch	30,20	3	0	1	39(27)	2	25(10)
3(AX)	Dinant	11,10	1	0	1	39(27)	10	50
4(AX)	Marche	17,9	1	0	1	39(27)	10	50
5(AX)	St Hubert	18,15	2	0	1	39(27)	10(5)	25
6(AX)	Liege	19,1	1	0	1	39(27)	10	50
7(AX)	Neufchateau	19,20	3	0	1	39(27)	10(5)	25
8(AX)	Manhay	22,9	1	0	1	39(27)	10(5)	25
9(AX)	Bastogne	23,16	2	0	1	39(27)	10(5)	25
10(AX)	Houffalize	24,13	2	0	1	39(27)	2	10
11(AX)	Verviers	25,2	1	0	1	39(27)	5	25
12(AX)	Malmedy	29,5	1	0	1	39(27)	5	25
1(AL)	Marche	17,9	2	0	1	39(27)	0	10
2(AL)	St Hubert	18,15	0(2)	0	1	39(27)	0(2)	10
3(AL)	Liege	19,1	3	1	1	39(27)	0	5
4(AL)	Neufchateau	19,20	2	0	1	39(27)	0	10
5(AL)	Manhay	22,9	1	0	1	39(27)	0(2)	10
6(AL)	Bastogne	23,16	2	1	1	39(27)	5	50(25)
7(AL)	Houffalize	24,13	0(2)	0	1	39(27)	1(5)	10(25)
8(AL)	Verviers(Dinant)	25,2(11,10)	1(3)	0(1)	1	39(27)	1(0)	5
9(AL)	Clervaux	28,16	0(2)	0	1	39(27)	2(5)	25
10(AL)	Malmedy	29,5	1	0	1	39(27)	2	25
11(AL)	St Vith	30,10	0(1)	0	1	39(27)	2(5)	25
12(AL)	Dierkirch	30,20	2	0	1	39(27)	2	25

ADJACENT ENEMY HEX PENALTY (AXIS/ALLIED) (0-15)

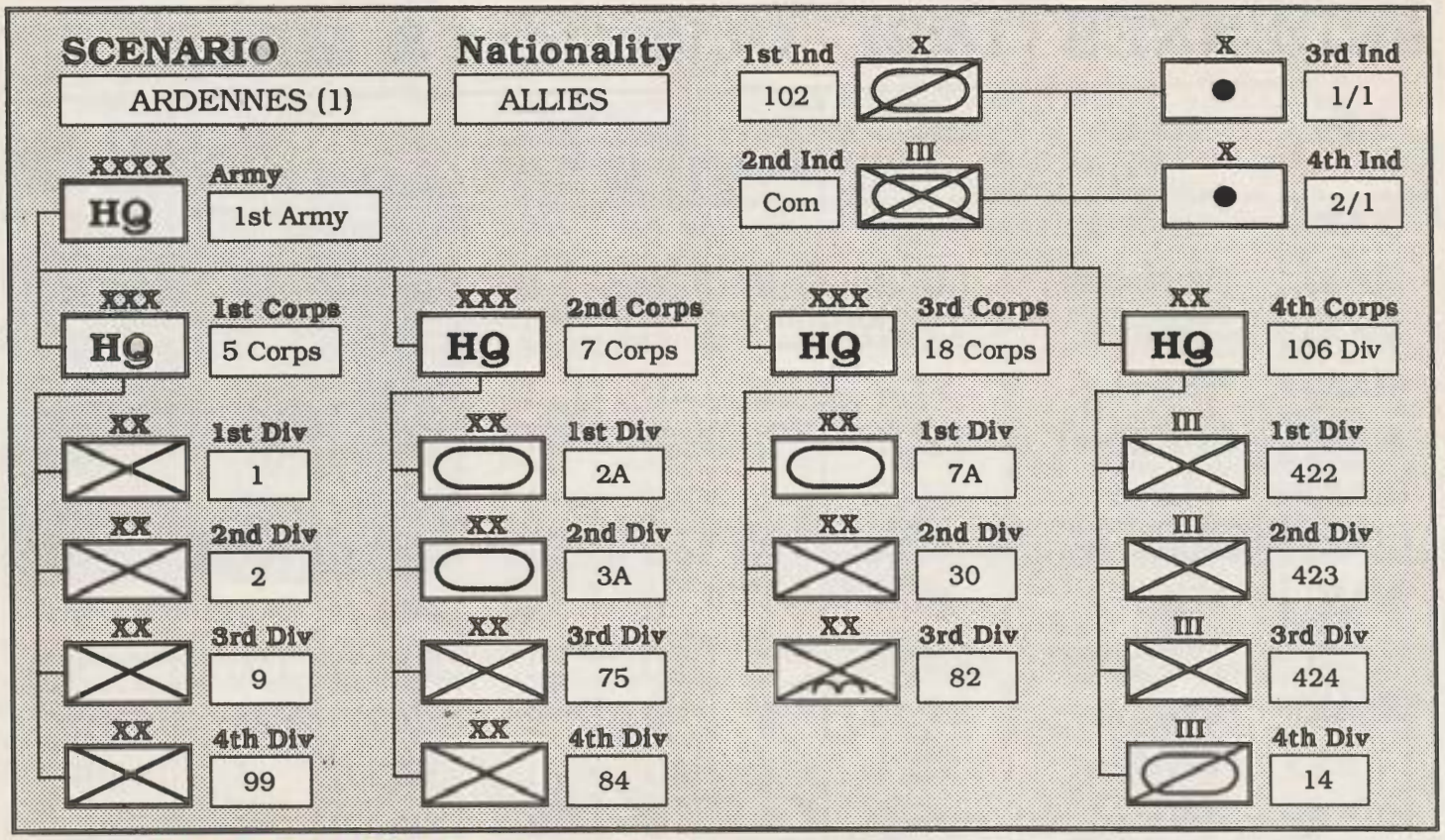
1st Hex =	0 1	4th Hex =	3 4
2nd Hex =	1 2	5th Hex =	3 4
3rd Hex =	1 2	6th Hex =	3 4

VICTORY POINTS PER STRENGTH POINT ELIM. (0-15)

	MECH	NON MECH
AXIS	4	2
ALLIED	3	2

MAP SIZE

ACROSS (0-2)	2
DOWN (0-3)	3

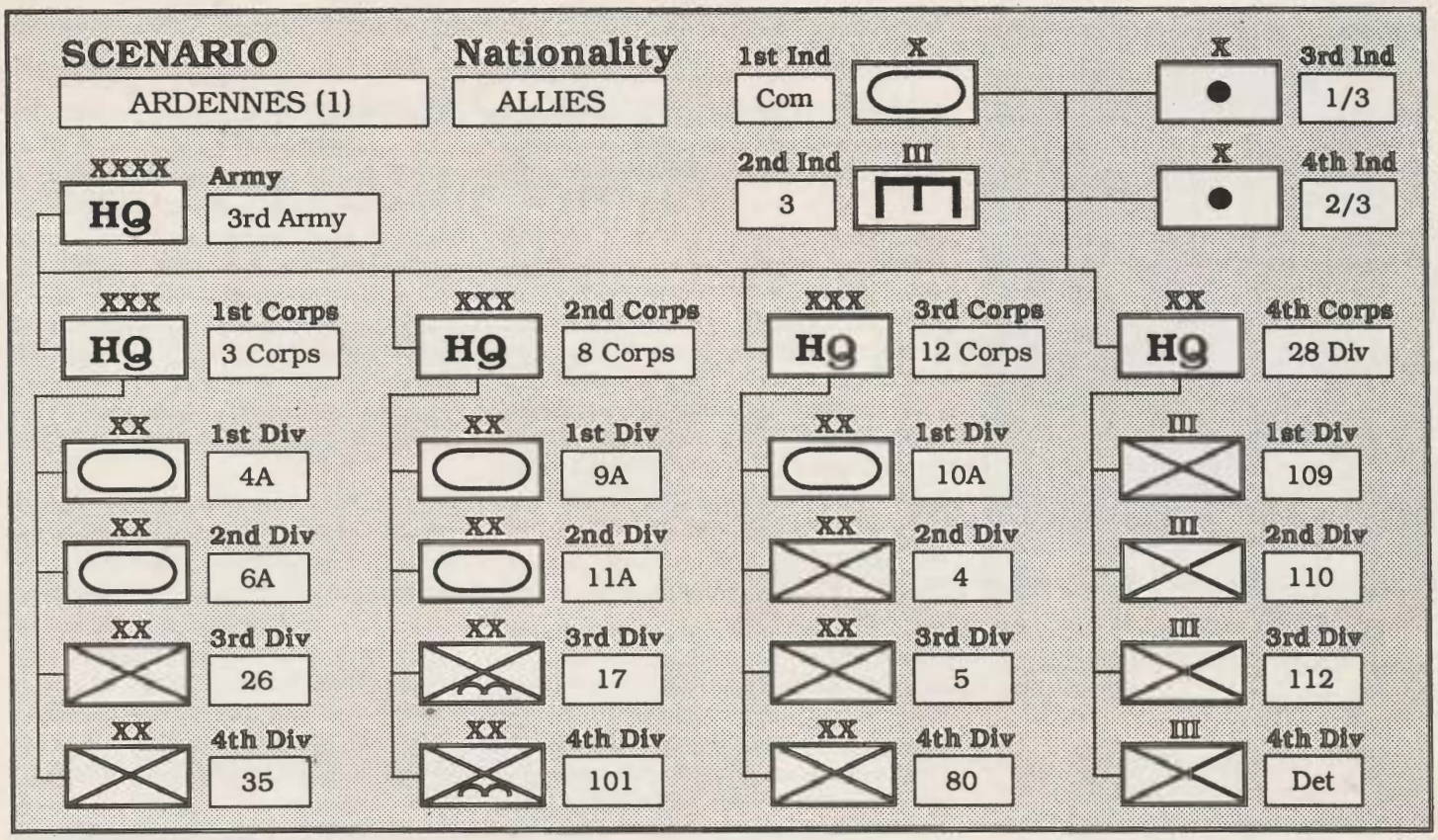


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	1st Army	5 Corps	7 Corps	18 Corps	106 Div
UNIT TYPE	[8]	Mixed	Infantry	Mixed	Mixed	Infantry
HQ ADMIN	0-7	6	6	6	6	4
LEADERSHIP	0-7	5	6	5	4	2
HQ SUPPLY	0-7	7	7	7	7	7
BRITTLE	0-1	0	0	0	0	0
MOVEMENT	0-31	4	N/A	N/A	N/A	N/A
ARRIVAL	0-99	0	N/A	N/A	N/A	N/A
LOCATION	(x,y)	27,5	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	1	2	9	99	2A	3A	75	84	7A	30	82		422	423	424	14	102	Com	1/1	2/1
LOCATION	(x,y)	28,0	32,4	28,0	33,5	16,0	24,0	12,0	20,0	28,0	28,0	11,10		32,9	32,10	31,11	33,7	31,2	25,2	29,1	28,0
CLASS	0-13	0	0	0	0	11	11	0	0	11	0	3		0	0	0	11	11	2	13	13
MODE	0-3	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
EQUIPM'T	0-31	3	3	3	3	5	5	3	3	5	3	7		3	3	3	8	8	9	4	4
MOVEMENT	0-31	6	6	6	6	10	10	6	6	10	6	6		0	0	0	12	12	10	7	7
ARRIVAL	0-99	10	0	14	0	27	19	29	20	7	11	9		0	0	0	0	0	0	0	9
MAX STREN.	0-15	15	15	15	15	15	15	15	15	12	15	15		5	5	5	4	9	6	15	15
INIT. STREN.	0-15	15	15	15	15	15	15	15	15	12	15	15		5	5	5	4	9	6	15	15
RATING	0-15	9	9	9	9	11	11	9	9	9	9	7		9	9	9	7	7	6	14	12
RANGE	0-15	0	0	0	0	1	1	0	0	1	0	0		0	0	0	0	0	0	6	6
FATIGUE	0-7	7	7	7	7	7	7	7	7	7	7	7		7	7	7	7	7	7	7	7
EXPERIENCE	0-7	7	6	5	4	6	6	3	4	4	5	6		2	2	2	4	4	4	5	5
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	1	1	1	3

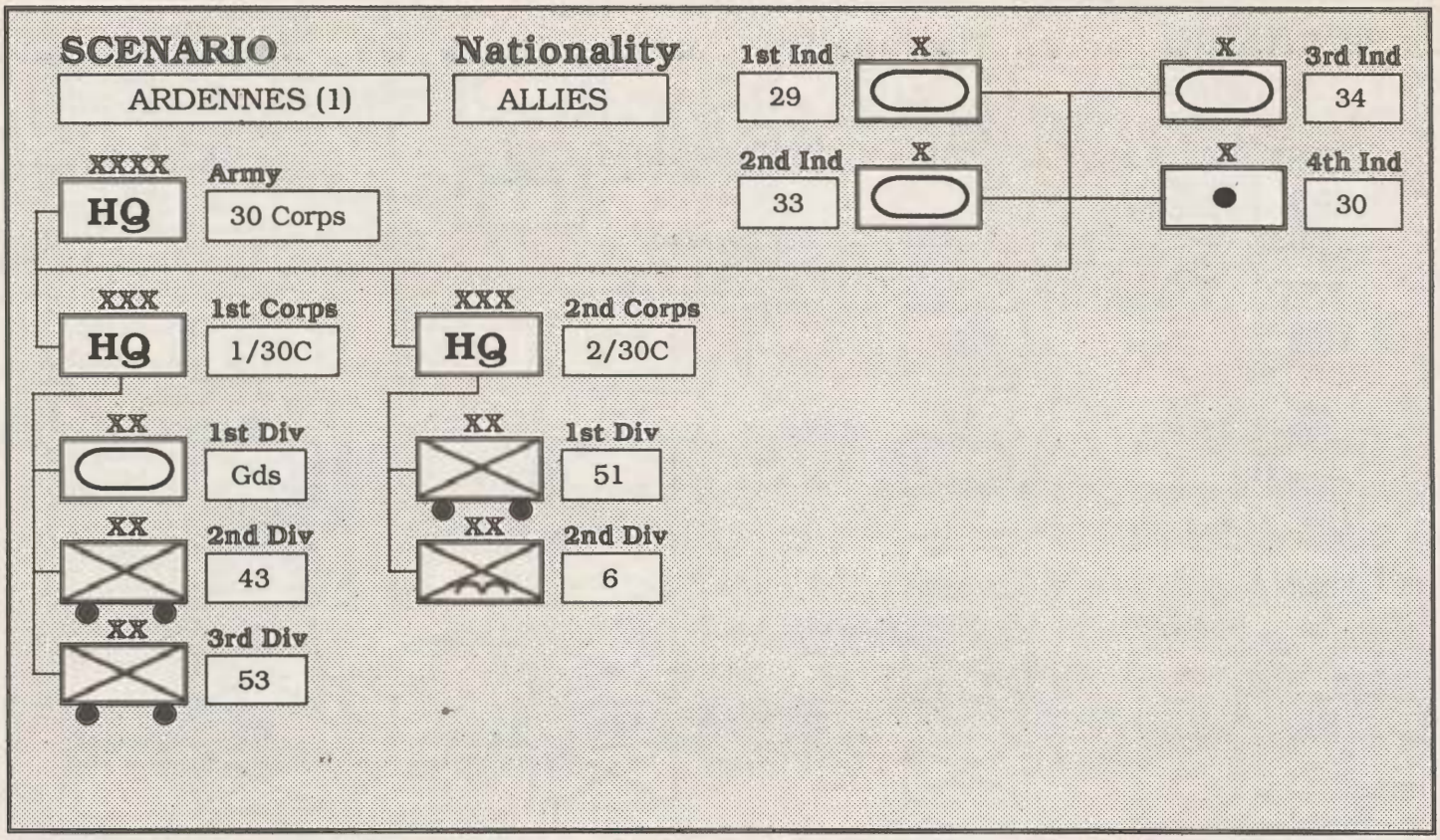


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	3rd Army	3 Corps	8 Corps	12 Corps	28 Div
UNIT TYPE	[8]	Mixed	Mixed	Mixed	Mixed	Infantry
HQ ADMIN	0-7	6	6	6	6	4
LEADERSHIP	0-7	7	5	3	4	3
HQ SUPPLY	0-7	4	6	6	6	7
BRITTLE	0-1	0	0	0	0	0
MOVEMENT	0-31	4	N/A	N/A	N/A	N/A
ARRIVAL	0-99	7	N/A	N/A	N/A	N/A
LOCATION	(x,y)	29,26	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	4A	6A	26	35	9A	11A	17	101	10A	4	5	80	109	110	112	Det	Com	3	1/3	2/3
LOCATION	(x,y)	23,27	29,27	23,27	23,27	34,22	8,27	8,27	7,18	30,27	33,24	30,27	29,27	30,18	29,15	29,13	31,20	24,13	23,16	26,18	29,27
CLASS	0-13	11	11	0	0	11	11	3	3	11	0	0	0	0	0	0	0	11	7	13	13
MODE	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EQUIPM'T	0-31	5	5	3	3	5	5	7	7	5	3	3	3	3	3	3	3	5	6	4	4
MOVEMENT	0-31	10	10	6	6	10	10	6	6	10	6	6	6	0	0	0	0	10	6	7	7
ARRIVAL	0-99	19	33	21	31	0	33	35	7	6	0	19	20	0	0	0	0	0	0	0	9
MAX STREN.	0-15	12	12	15	15	12	12	15	15	12	15	15	15	4	4	4	4	9	6	15	15
INIT. STREN.	0-15	10	10	14	15	9	11	15	15	12	15	12	13	4	4	4	4	9	6	15	11
RATING	0-15	9	9	9	9	9	9	7	7	9	9	9	9	9	9	9	9	9	8	14	14
RANGE	0-15	1	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0	6	6
FATIGUE	0-7	5	5	5	5	7	5	7	7	7	7	5	5	7	7	7	7	7	7	7	5
EXPERIENCE	0-7	5	5	5	4	4	4	6	7	5	5	5	4	5	5	5	5	4	3	5	5
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	3	4	3

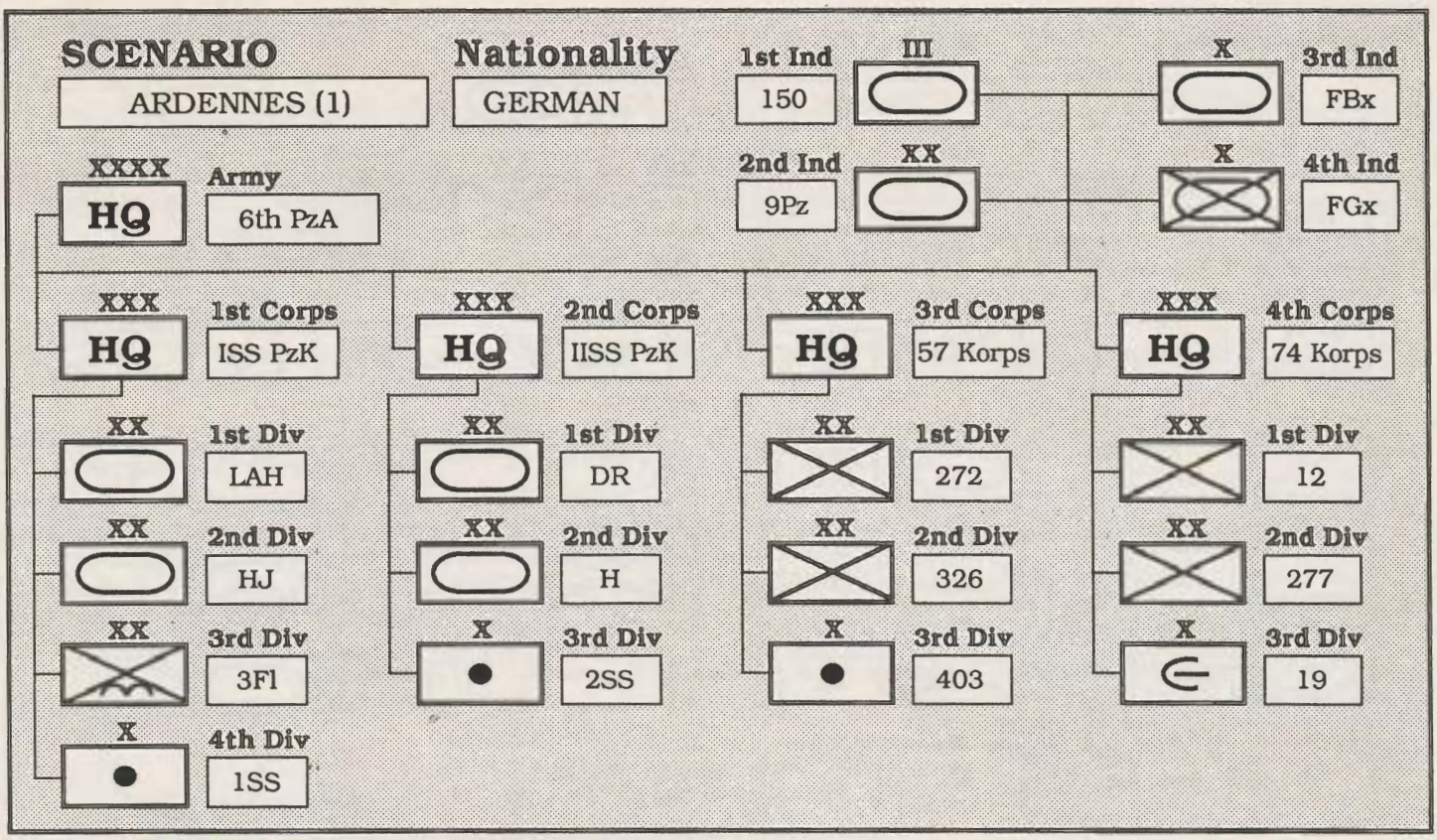


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	30 Corps	1/30C	2/30C		
UNIT TYPE	[8]	Mixed	Mixed	Infantry		
HQ ADMIN	0-7	5	5	5		
LEADERSHIP	0-7	5	5	4		
HQ SUPPLY	0-7	6	7	7		
BRITTLE	0-1	0	0	0		
MOVEMENT	0-31	4	N/A	N/A		
ARRIVAL	0-99	19	N/A	N/A		
LOCATION	(x,y)	15,0	N/A	N/A		

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	Gds	43	53		51	6											29	33	34	30
LOCATION	(x,y)	16,0	16,0	16,0		12,0	12,0											16,0	16,0	16,0	16,0
CLASS	0-13	11	1	1		1	3											11	11	11	13
MODE	0-3	0	0	0		0	0											0	0	0	0
EQUIPM'T	0-31	2	1	1		1	7											2	2	2	4
MOVEMENT	0-31	10	10	10		10	6											10	10	10	7
ARRIVAL	0-99	25	19	25		39	39											20	22	21	20
MAX STREN.	0-15	12	15	15		15	15											9	6	6	12
INIT. STREN.	0-15	12	15	15		15	15											9	6	6	12
RATING	0-15	12	10	10		10	8											10	10	10	11
RANGE	0-15	0	0	0		0	0											0	0	0	5
FATIGUE	0-7	7	7	7		7	7											7	7	7	7
EXPERIENCE	0-7	6	6	5		5	5											5	4	4	5
ATTACHM'T	0-4	N/A	N/A	N/A		N/A	N/A											1	1	1	1

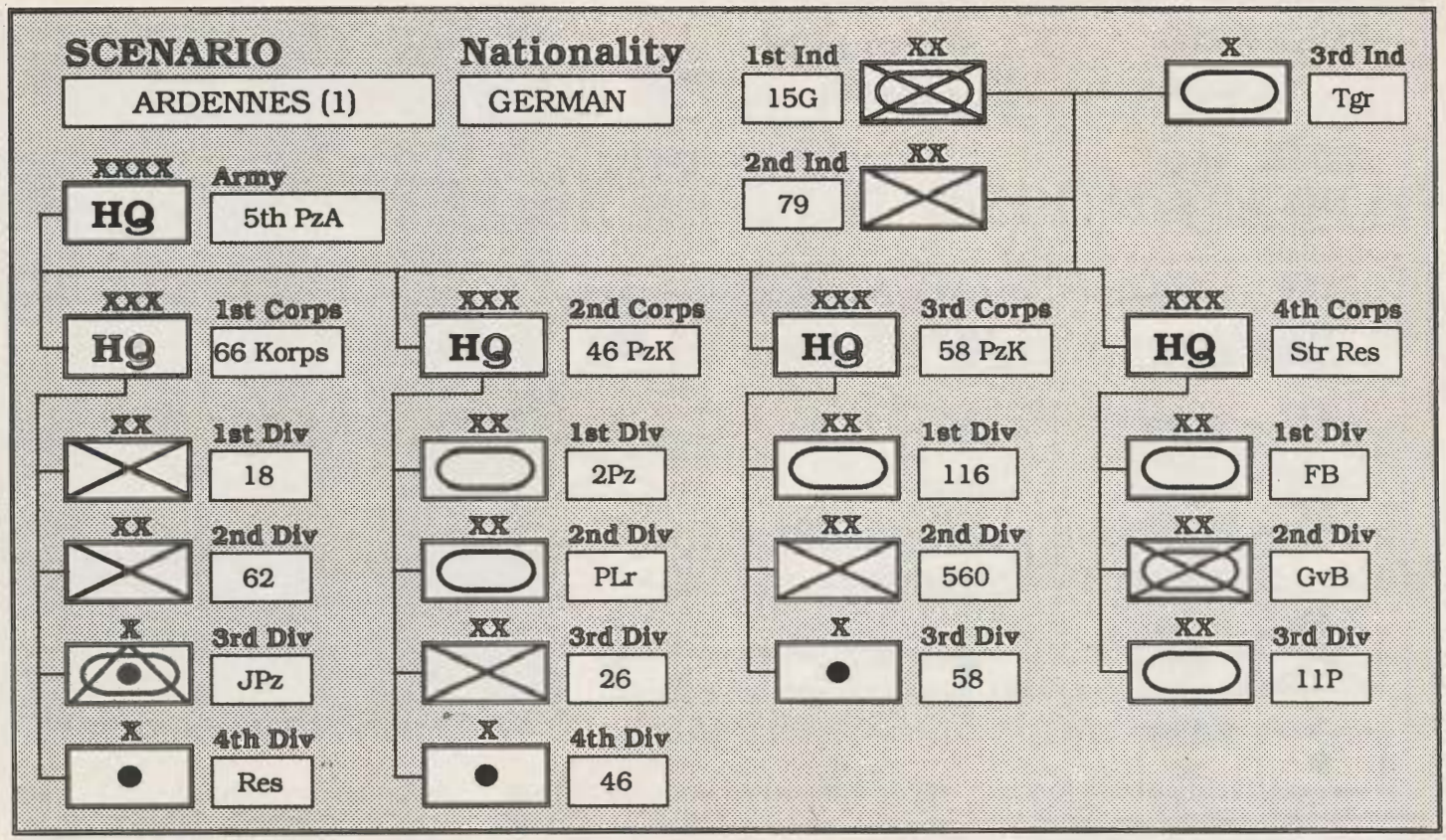


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	6th PzA	ISS PzK	IISS PzK	57 Korps	74 Korps
UNIT TYPE	[8]	Mixed	Panzer	Panzer	Infantry	Infantry
HQ ADMIN	0-7	6	7	6	5	5
LEADERSHIP	0-7	6	6	5	4	4
HQ SUPPLY	0-7	3	7	7	7	7
BRITTLE	0-1	0	0	0	0	0
MOVEMENT	0-31	4	N/A	N/A	N/A	N/A
ARRIVAL	0-99	0	N/A	N/A	N/A	N/A
LOCATION	(x,y)	38,9	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	LAH	HJ	3Fl	1SS	DR	H	2SS		272	326	403		12	277	19		150	9Pz	FBx	FGx
LOCATION	(x,y)	35,7	35,3	35,8	36,7	38,9	38,9	38,9		32,2	33,3	35,2		34,5	34,4	35,4		36,8	38,9	38,9	38,9
CLASS	0-13	11	11	3	13	11	11	13		0	0	13		0	0	13		11	11	11	2
MODE	0-3	0	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0
EQUIPM'T	0-31	10	10	7	14	10	10	4		3	3	4		3	3	12		13	14	10	9
MOVEMENT	0-31	10	10	6	7	10	10	7		6	6	1		6	6	1		16	10	10	10
ARRIVAL	0-99	0	0	0	0	15	15	15		0	0	0		0	0	0		0	29	12	25
MAX STREN.	0-15	15	12	12	12	12	12	4		6	9	8		12	9	4		4	12	9	6
INIT. STREN.	0-15	15	12	12	12	12	9	4		5	8	8		11	8	4		4	9	9	6
RATING	0-15	12	11	8	8	11	10	7		7	7	8		9	7	9		10	9	12	8
RANGE	0-15	1	1	0	5	1	1	4		0	0	5		0	0	3		0	1	1	0
FATIGUE	0-7	7	7	7	7	7	7	7		7	7	7		7	7	7		7	7	7	7
EXPERIENCE	0-7	7	6	6	5	6	4	4		4	3	4		6	3	3		7	5	6	5
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A		1	1	1	1

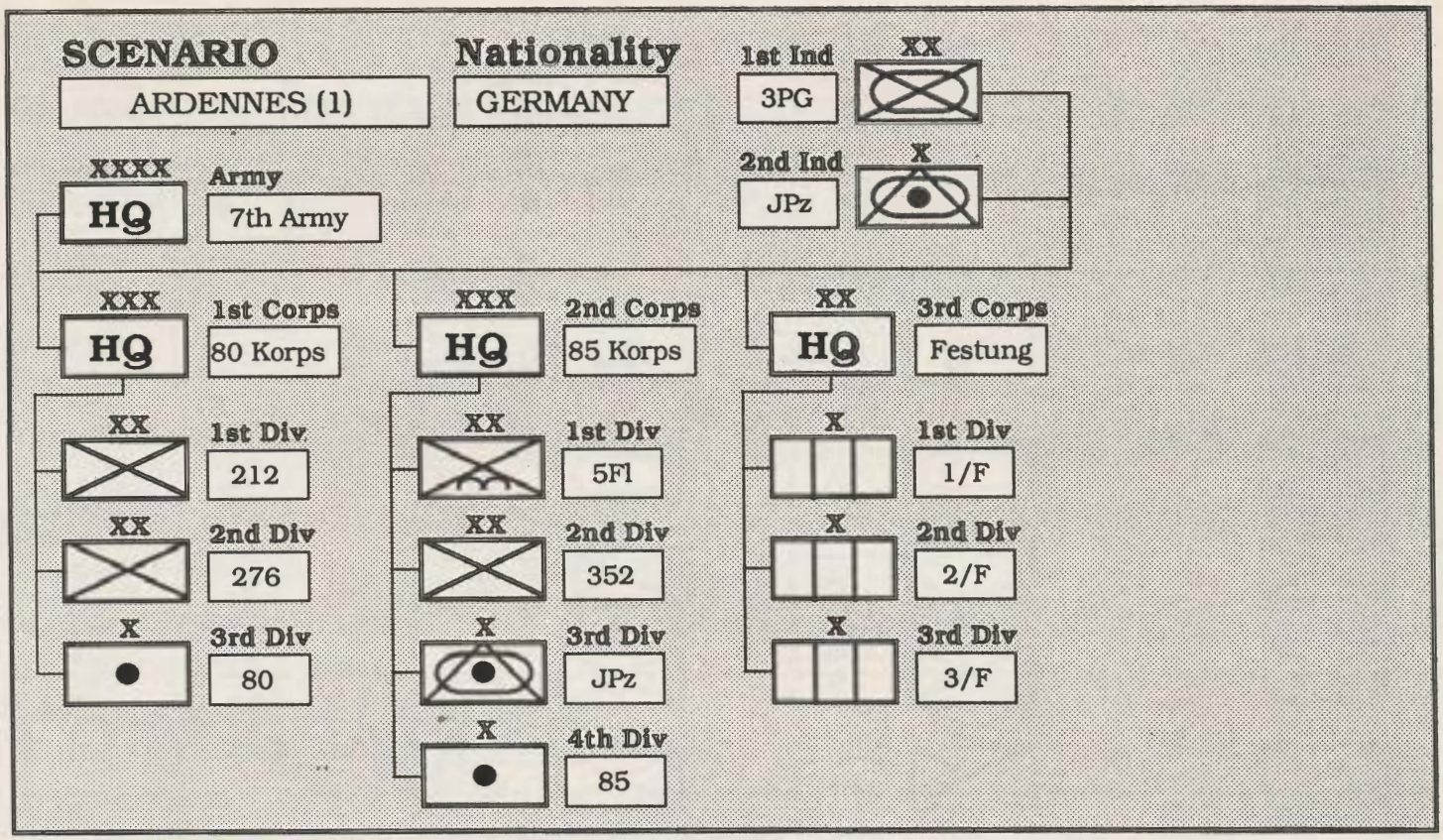


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	5th PzA	66 Korps	46 PzK	58 PzK	Str Res
UNIT TYPE	[8]	Mixed	Infantry	Panzer	Panzer	Panzer
HQ ADMIN	0-7	5	4	5	5	6
LEADERSHIP	0-7	5	4	6	5	5
HQ SUPPLY	0-7	3	7	7	7	7
BRITTLE	0-1	0	0	0	0	0
MOVEMENT	0-31	4	N/A	N/A	N/A	N/A
ARRIVAL	0-99	0	N/A	N/A	N/A	N/A
LOCATION	(x,y)	33,15	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	18	62	JPz	Res	2Pz	PLr	26	46	116	560	58		FB	GvB	11P		15G	79	Tgr	
LOCATION	(x,y)	33,9	32,12	33,10	34,11	30,16	32,15	30,17	31,15	31,13	30,14	32,14		38,20	38,20	38,20		38,16	38,16	31,14	
CLASS	0-13	0	0	10	13	11	11	0	13	11	0	13		11	2	11		2	0	11	
MODE	0-3	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	0	0	
EQUIPM'T	0-31	3	3	16	4	14	14	3	4	14	3	4		10	9	14		9	3	15	
MOVEMENT	0-31	6	6	10	1	10	10	6	1	10	6	1		10	10	10		10	6	10	
ARRIVAL	0-99	0	0	0	0	0	0	0	0	0	0	0		11	11	11		29	27	0	
MAX STREN.	0-15	9	9	4	4	9	12	15	8	9	9	8		(12)	(9)	(9)		9	9	4	
INIT. STREN.	0-15	9	9	4	4	8	10	14	8	7	6	8		(12)	(9)	(9)		8	9	4	
RATING	0-15	7	7	8	7	9	10	11	8	9	7	8		10	8	9		8	7	12	
RANGE	0-15	0	0	1	4	1	1	0	5	1	0	5		1	0	1		1	0	0	
FATIGUE	0-7	7	7	7	7	7	7	7	7	7	7	7		7	7	7		7	7	7	
EXPERIENCE	0-7	4	4	4	3	4	5	7	4	3	4	4		5	6	4		5	4	5	
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		2	2	3	

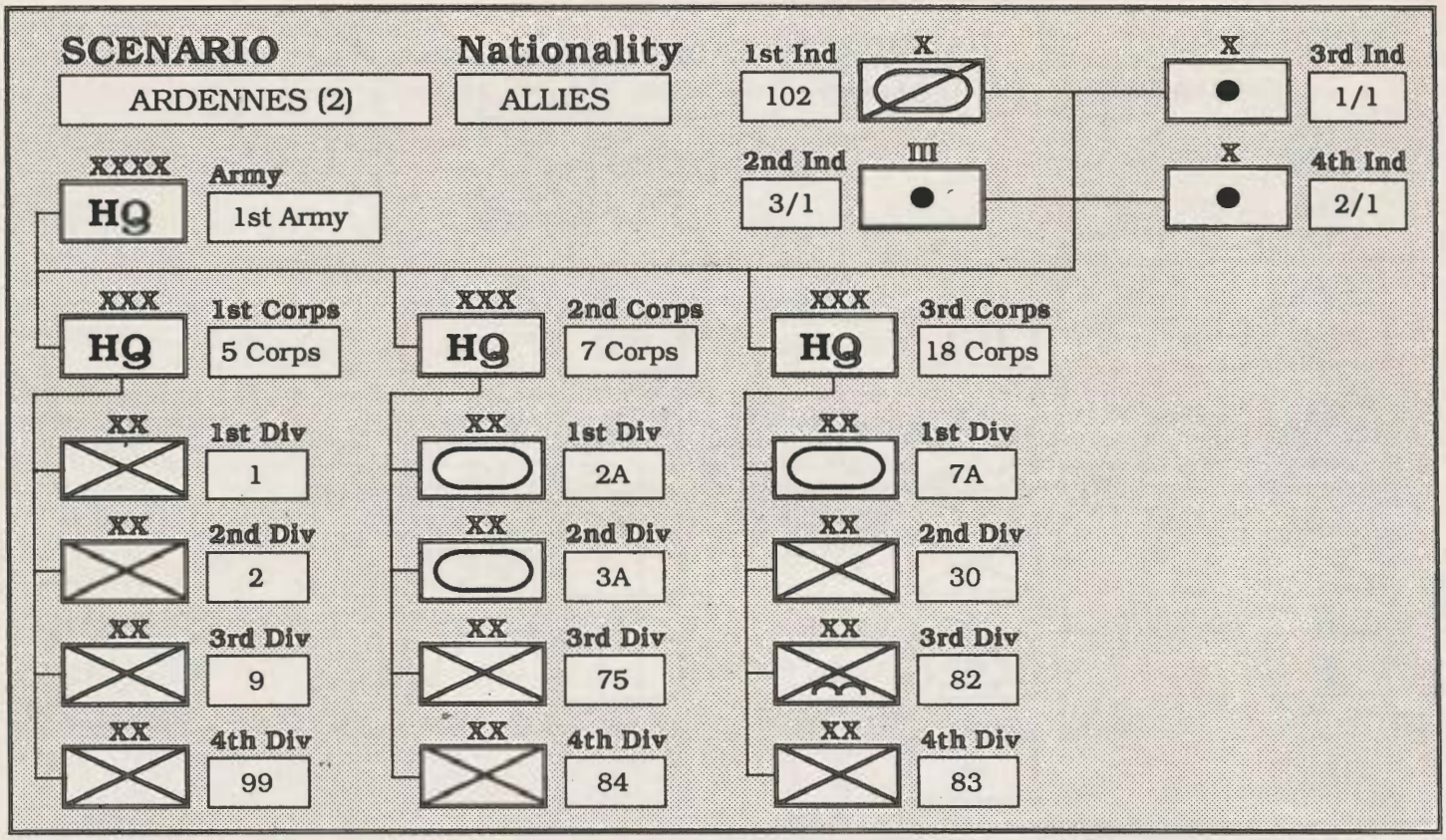


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	7th Army	80 Korps	85 Korps	Festung	
UNIT TYPE	[8]	Infantry	Infantry	Infantry	Garrison	
HQ ADMIN	0-7	5	5	5	4	
LEADERSHIP	0-7	5	4	5	2	
HQ SUPPLY	0-7	3	7	7	7	
BRITTLE	0-1	0	0	0	0	
MOVEMENT	0-31	4	N/A	N/A	N/A	
ARRIVAL	0-99	0	N/A	N/A	N/A	
LOCATION	(x,y)	38,23	N/A	N/A	N/A	

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	212	276	80		5Fl	352	JPz	85	1/F	2/F	3/F						3PG	JPz		
LOCATION	(x,y)	35,21	33,20	35,20		31,17	32,19	31,18	32,18	34,27	35,25	36,24						38,23	38,23		
CLASS	0-13	0	0	13		3	0	10	13	0	0	0						2	10		
MODE	0-3	0	0	0		0	0	0	0	0	0	0						0	0		
EQUIPM'T	0-31	3	3	4		7	3	16	4	11	11	11						9	16		
MOVEMENT	0-31	6	6	1		6	6	10	1	0	0	0						10	10		
ARRIVAL	0-99	0	0	0		0	0	0	0	0	0	0						15	5		
MAX STREN.	0-15	9	9	8		12	9	4	8	3	3	3						9	4		
INIT. STREN.	0-15	9	9	8		10	9	4	8	3	3	3						8	4		
RATING	0-15	8	7	8		8	7	8	7	8	8	8						8	8		
RANGE	0-15	0	0	5		0	0	1	4	0	0	0						0	1		
FATIGUE	0-7	7	7	7		7	7	7	7	7	7	7						7	7		
EXPERIENCE	0-7	5	4	4		5	4	4	4	3	3	3						5	4		
ATTACHM'T	0-4	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A						2	2		

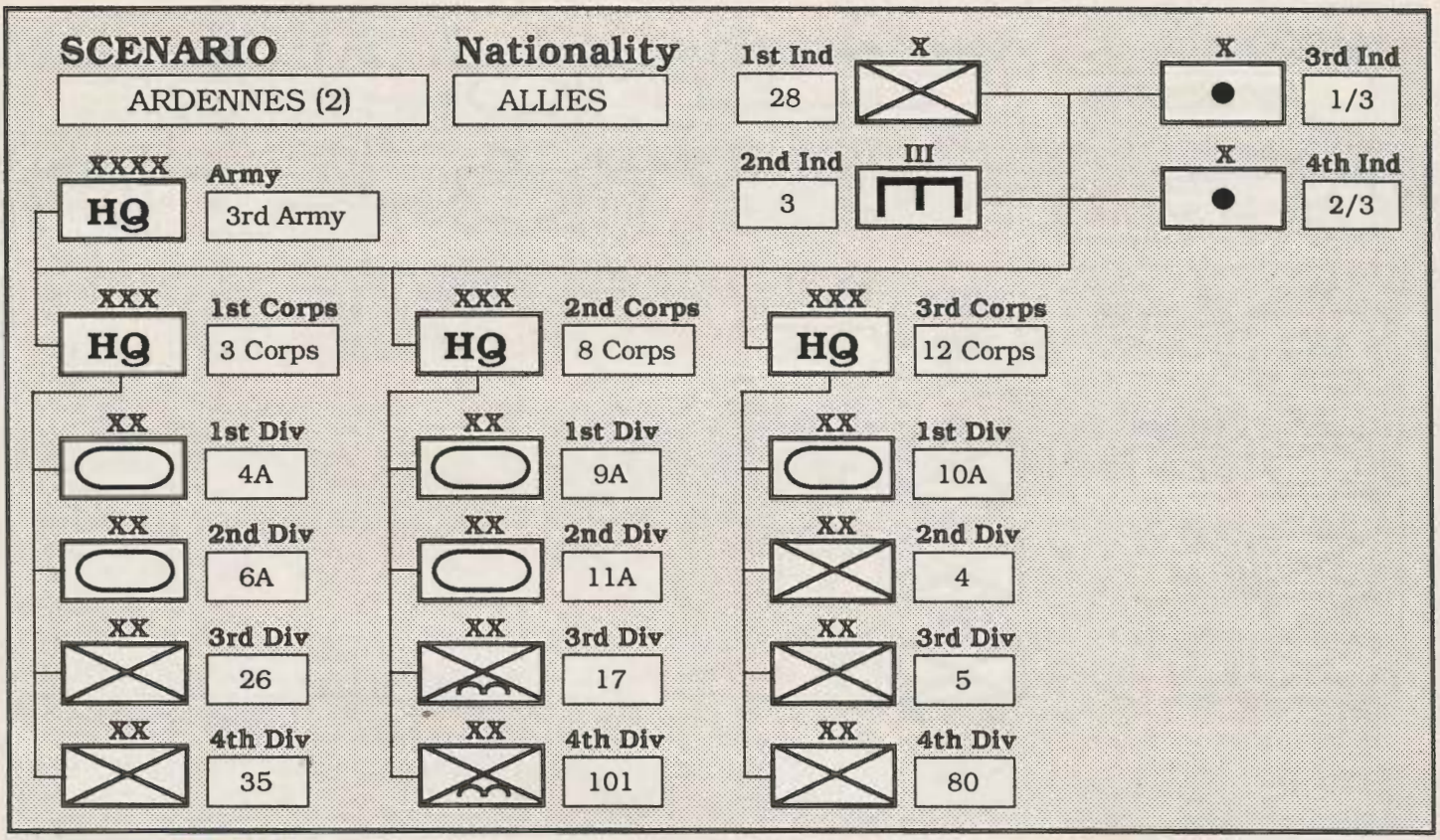


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	1st Army	5 Corps	7 Corps	18 Corps	
UNIT TYPE	[8]	Mixed	Infantry	Mixed	Mixed	
HQ ADMIN	0-7	6	6	6	6	
LEADERSHIP	0-7	5	6	5	4	
HQ SUPPLY	0-7	7	5	7	6	
BRITTLE	0-1	0	0	0	0	
MOVEMENT	0-31	4	N/A	N/A	N/A	
ARRIVAL	0-99	0	N/A	N/A	N/A	
LOCATION	(x,y)	25,2	N/A	N/A	N/A	

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	1	2	9	99	2A	3A	75	84	7A	30	82	83					102	3/1	1/1	2/1
LOCATION	(x,y)	29,5	31,2	31,1	31,4	15,8	19,7	17,7	17,8	23,7	26,5	24,6	24,0					25,4	26,4	23,5	29,2
CLASS	0-13	0	0	0	0	11	11	0	0	11	0	3	0					11	13	13	13
MODE	0-3	0	0	0	0	0	0	0	0	0	0	0	0					0	0	0	0
EQUIPM'T	0-31	3	3	3	3	5	5	3	3	5	3	7	3					8	4	4	4
MOVEMENT	0-31	6	6	6	6	10	10	6	6	10	6	6	6					12	7	7	7
ARRIVAL	0-99	0	0	0	0	0	0	0	0	0	0	0	0					0	0	0	0
MAX STREN.	0-15	15	15	15	15	15	15	15	15	12	15	15	15					9	15	15	15
INIT. STREN.	0-15	14	13	15	12	15	15	15	15	9	15	14	15					7	13	14	13
RATING	0-15	9	9	9	9	11	11	9	9	9	9	7	9					7	14	14	12
RANGE	0-15	0	0	0	0	1	1	0	0	1	0	0	0					0	6	6	6
FATIGUE	0-7	6	5	7	5	7	7	7	7	5	7	6	7					5	7	6	6
EXPERIENCE	0-7	7	6	5	4	6	6	3	4	4	5	6	4					4	4	5	5
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					3	3	3	1

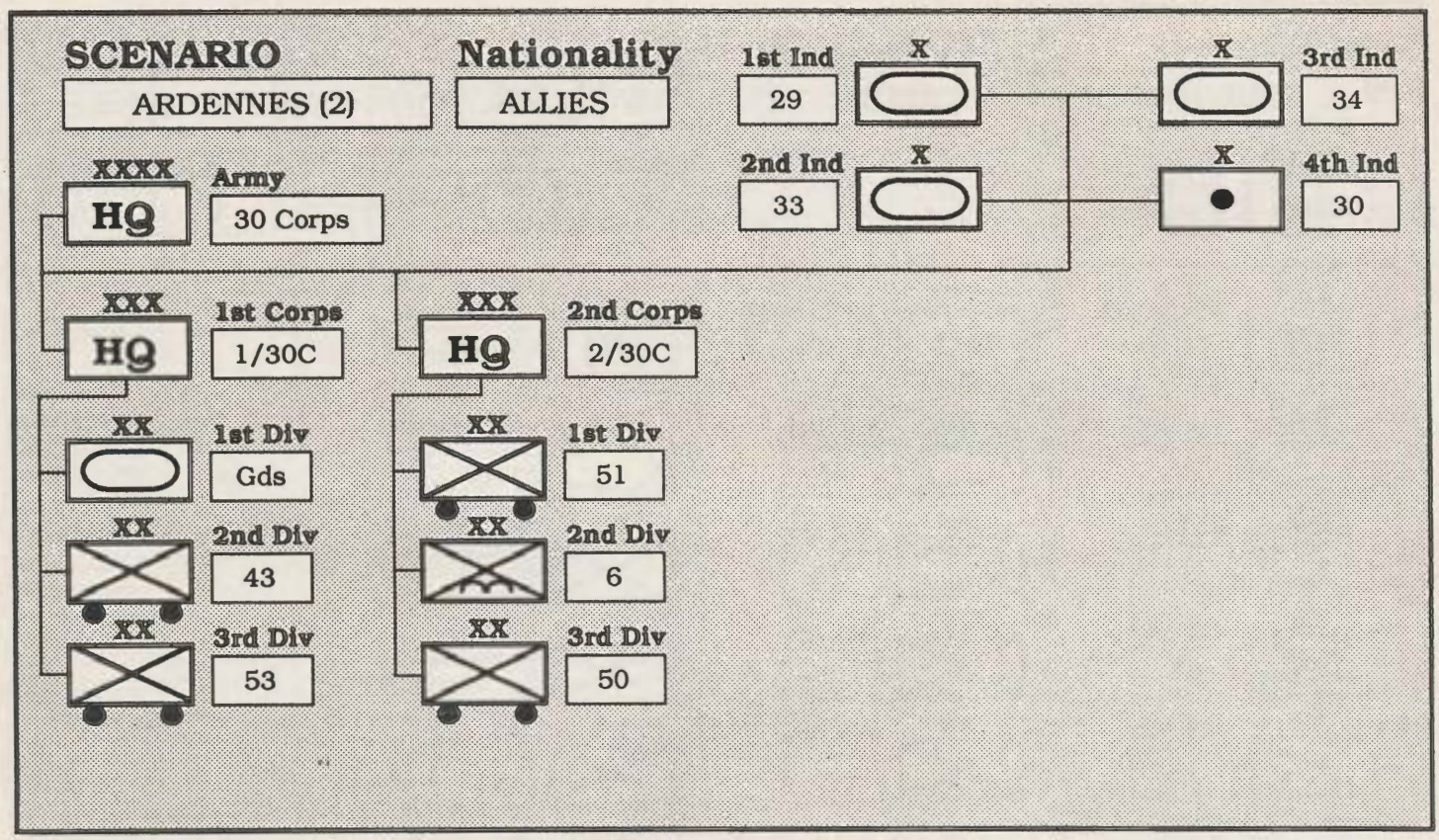


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	3rd Army	3 Corps	8 Corps	12 Corps	
UNIT TYPE	[8]	Mixed	Mixed	Mixed	Mixed	
HQ ADMIN	0-7	6	6	6	6	
LEADERSHIP	0-7	7	5	3	4	
HQ SUPPLY	0-7	4	6	5	6	
BRITTLE	0-1	0	0	0	0	
MOVEMENT	0-31	4	N/A	N/A	N/A	
ARRIVAL	0-99	0	N/A	N/A	N/A	
LOCATION	(x,y)	24,25	N/A	N/A	N/A	

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	4A	6A	26	35	9A	11A	17	101	10A	4	5	80					28	3	1/3	2/3
LOCATION	(x,y)	22,19	22,22	24,21	24,23	13,15	11,18	10,19	23,16	31,22	32,23	30,23	28,22					27,21	19,20	30,24	22,23
CLASS	0-13	11	11	0	0	11	11	3	3	11	0	0	0					0	7	13	13
MODE	0-3	0	0	0	0	0	0	0	0	0	0	0	0					0	0	0	0
EQUIPM'T	0-31	5	5	3	3	5	5	7	7	5	3	3	3					3	6	4	4
MOVEMENT	0-31	10	10	6	6	10	10	6	6	10	6	6	6					6	6	7	7
ARRIVAL	0-99	0	0	0	0	0	0	0	0	0	0	0	0					0	0	0	0
MAX STREN.	0-15	12	12	15	15	12	12	15	15	12	15	15	15					15	6	15	15
INIT. STREN.	0-15	10	10	14	15	8	11	15	11	11	13	12	13					10	6	15	11
RATING	0-15	9	9	9	9	9	9	7	7	9	9	9	9					9	8	14	14
RANGE	0-15	1	1	0	0	1	1	0	0	1	0	0	0					0	0	6	6
FATIGUE	0-7	5	5	5	5	5	5	7	4	5	5	5	5					4	7	6	5
EXPERIENCE	0-7	5	5	5	4	4	4	6	7	5	5	5	4					5	3	5	5
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					3	1	3	1

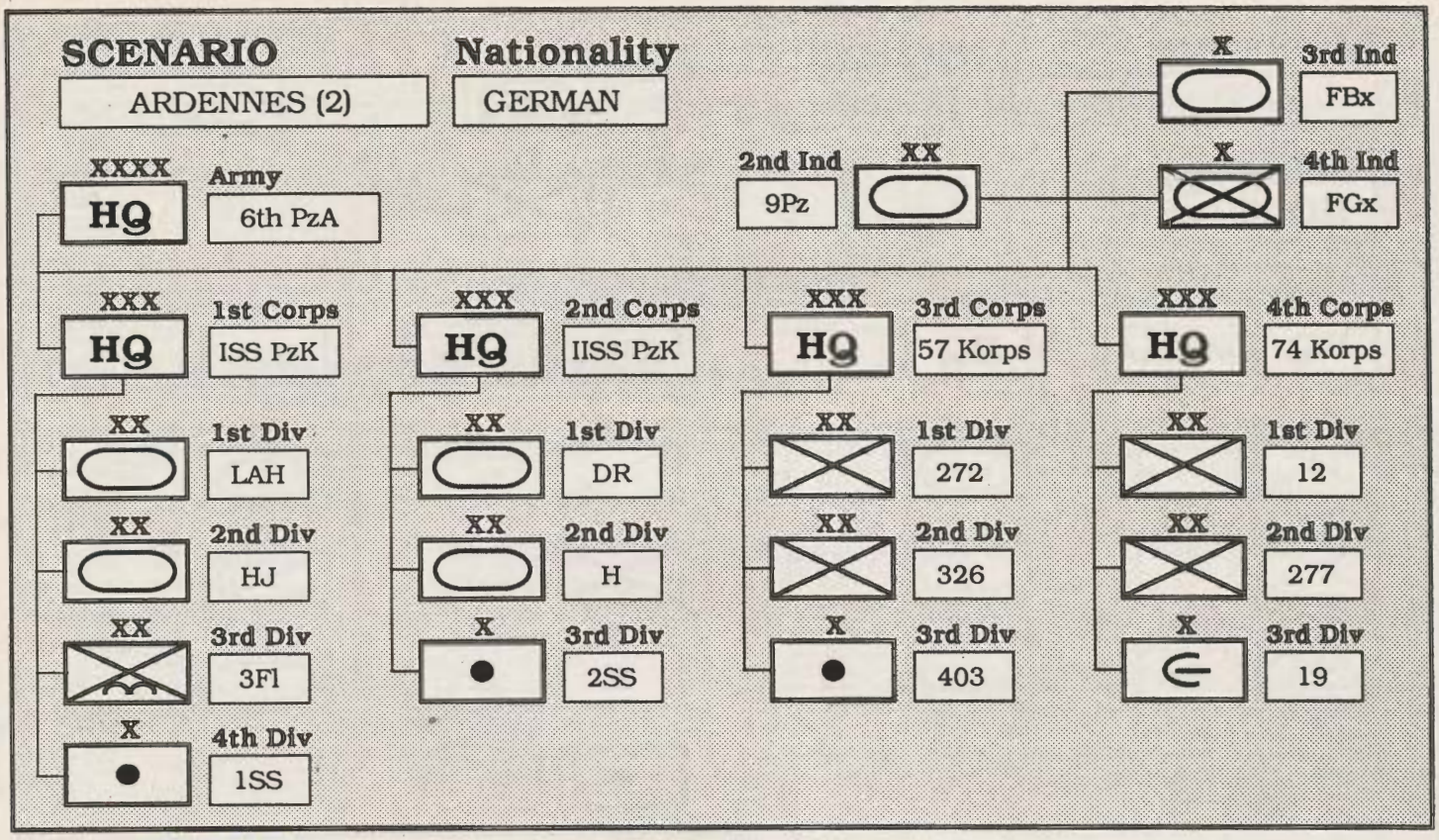


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	30 Corps	1/30C	2/30C		
UNIT TYPE	[8]	Mixed	Mixed	Infantry		
HQ ADMIN	0-7	5	5	5		
LEADERSHIP	0-7	5	5	4		
HQ SUPPLY	0-7	6	7	7		
BRITTLE	0-1	0	0	0		
MOVEMENT	0-31	4	N/A	N/A		
ARRIVAL	0-99	0	N/A	N/A		
LOCATION	(x,y)	8,4	N/A	N/A		

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	Gds	43	53		51	6	50										29	33	34	30
LOCATION	(x,y)	17,1	20,1	19,1		10,4	10,3	12,0										11,10	14,2	15,2	19,0
CLASS	0-13	11	1	1		1	3	1										11	11	11	13
MODE	0-3	0	0	0		0	0	0										0	0	0	0
EQUIPM'T	0-31	2	1	1		1	7	1										2	2	2	4
MOVEMENT	0-31	10	10	10		10	6	10										10	10	10	7
ARRIVAL	0-99	0	0	0		0	0	0										0	0	0	0
MAX STREN.	0-15	12	15	15		15	15	15										9	6	6	12
INIT. STREN.	0-15	12	15	15		15	15	15										9	6	6	12
RATING	0-15	12	10	10		10	8	10										10	10	10	11
RANGE	0-15	0	0	0		0	0	0										0	0	0	5
FATIGUE	0-7	7	7	7		7	7	7										7	7	7	7
EXPERIENCE	0-7	6	6	5		5	5	5										5	4	4	5
ATTACHM'T	0-4	N/A	N/A	N/A		N/A	N/A	N/A										2	1	1	1

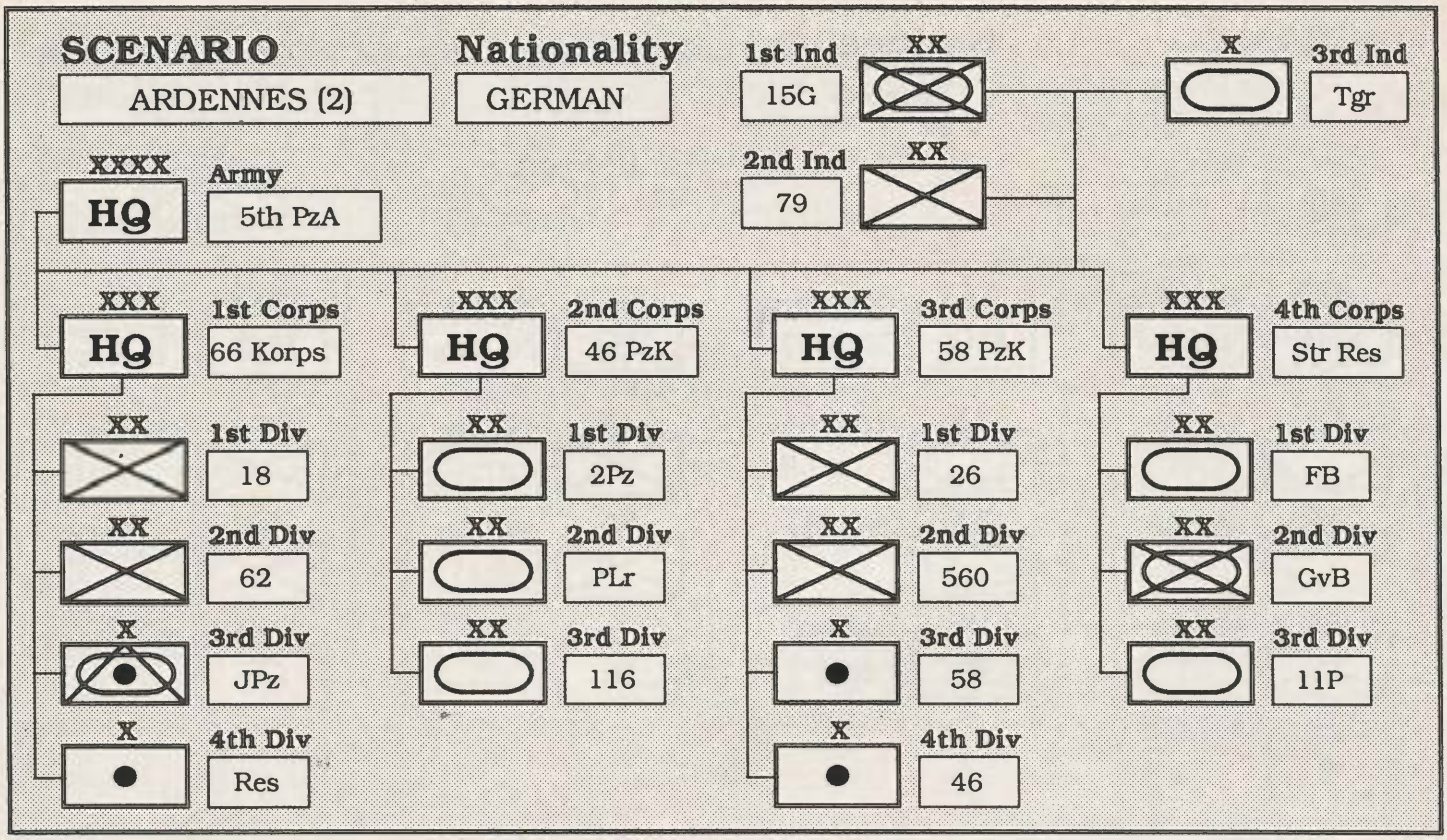


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	6th PzA	ISS PzK	IISS PzK	57 Korps	74 Korps
UNIT TYPE	[8]	Mixed	Panzer	Panzer	Infantry	Infantry
HQ ADMIN	0-7	6	7	6	5	5
LEADERSHIP	0-7	6	6	5	4	4
HQ SUPPLY	0-7	3	4	6	5	5
BRITTLE	0-1	0	0	0	0	0
MOVEMENT	0-31	4	N/A	N/A	N/A	N/A
ARRIVAL	0-99	0	N/A	N/A	N/A	N/A
LOCATION	(x,y)	24,13	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	LAH	HJ	3Fl	1SS	DR	H	2SS		272	326	403		12	277	19		9Pz	FBx	FGx	
LOCATION	(x,y)	24,9	23,9	27,7	26,10	20,10	21,9	22,12		32,2	32,4	34,3		31,5	29,6	32,6		19,12	22,10	24,12	
CLASS	0-13	11	11	3	13	11	11	13		0	0	13		0	0	13		11	11	2	
MODE	0-3	0	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	
EQUIPM'T	0-31	10	10	7	14	10	10	4		3	3	4		3	3	12		14	10	9	
MOVEMENT	0-31	10	10	6	7	10	10	7		6	6	1		6	6	1		10	10	10	
ARRIVAL	0-99	0	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	
MAX STREN.	0-15	15	12	12	12	12	12	4		6	9	8		12	9	4		12	9	6	
INIT. STREN.	0-15	11	10	10	10	12	9	4		5	7	8		10	7	4		9	9	6	
RATING	0-15	12	11	8	8	11	10	7		7	7	8		9	7	9		9	12	8	
RANGE	0-15	1	1	0	5	1	1	4		0	0	5		0	0	3		1	1	0	
FATIGUE	0-7	5	5	6	6	6	6	7		6	6	7		6	6	7		7	7	7	
EXPERIENCE	0-7	7	6	6	5	6	4	4		4	3	4		6	3	3		5	6	5	
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A		2	1	1	

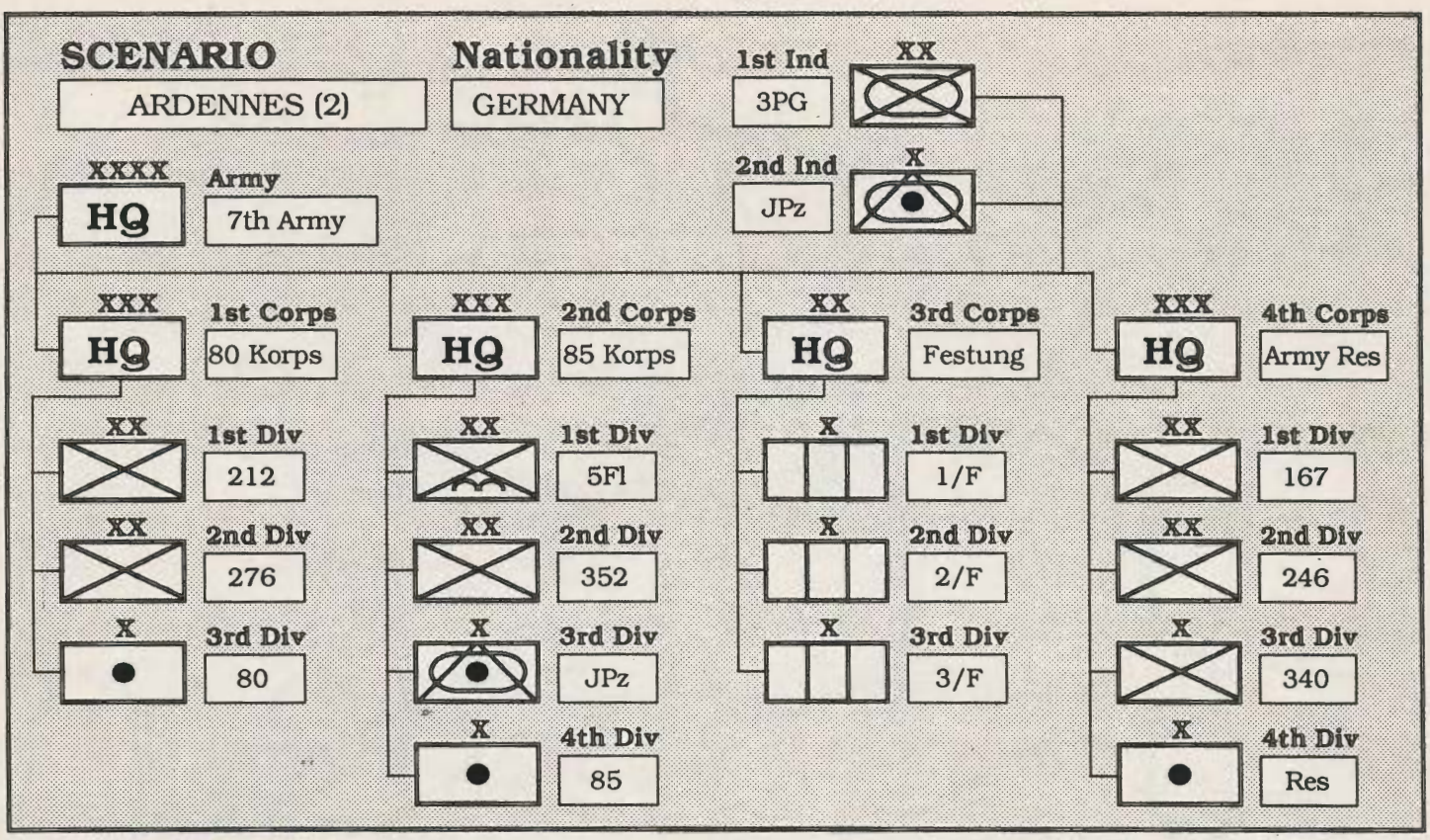


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	5th PzA	66 Korps	46 PzK	58 PzK	Str Res
UNIT TYPE	[8]	Mixed	Infantry	Panzer	Panzer	Panzer
HQ ADMIN	0-7	5	4	5	5	6
LEADERSHIP	0-7	5	4	6	5	5
HQ SUPPLY	0-7	3	5	4	4	7
BRITTLE	0-1	0	0	0	0	0
MOVEMENT	0-31	4	N/A	N/A	N/A	N/A
ARRIVAL	0-99	0	N/A	N/A	N/A	N/A
LOCATION	(x,y)	28,16	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	18	62	JPz	Res	2Pz	PLr	116		26	560	58	46	FB	GvB	11P		15G	79	Tgr	
LOCATION	(x,y)	28,9	29,9	30,10	31,9	15,11	15,13	18,11		24,16	23,15	27,15	26,15	20,12	21,9	22,9		21,16	29,15	18,13	
CLASS	0-13	0	0	10	13	11	11	11		0	0	13	13	11	2	11		2	0	11	
MODE	0-3	0	0	0	0	0	0	0		0	0	0	0	0	0	0		0	0	0	
EQUIPM'T	0-31	3	3	16	4	14	14	14		3	3	4	4	10	9	14		9	3	15	
MOVEMENT	0-31	6	6	10	1	10	10	10		6	6	1	1	10	10	10		10	6	10	
ARRIVAL	0-99	0	0	0	0	0	0	0		0	0	0	0	11	11	11		0	0	0	
MAX STREN.	0-15	9	9	4	4	9	12	9		15	9	8	8	(12)	(9)	(9)		9	9	4	
INIT. STREN.	0-15	8	9	4	4	7	9	7		12	8	7	7	(12)	(9)	(9)		8	9	3	
RATING	0-15	7	7	8	7	9	10	9		11	7	8	8	10	8	9		8	7	12	
RANGE	0-15	0	0	1	4	1	1	1		0	0	5	5	1	0	1		1	0	0	
FATIGUE	0-7	6	6	6	7	5	5	5		5	6	6	6	7	7	7		6	7	7	
EXPERIENCE	0-7	4	4	4	3	4	5	3		7	4	4	4	5	6	4		5	4	5	
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A		3	3	2	

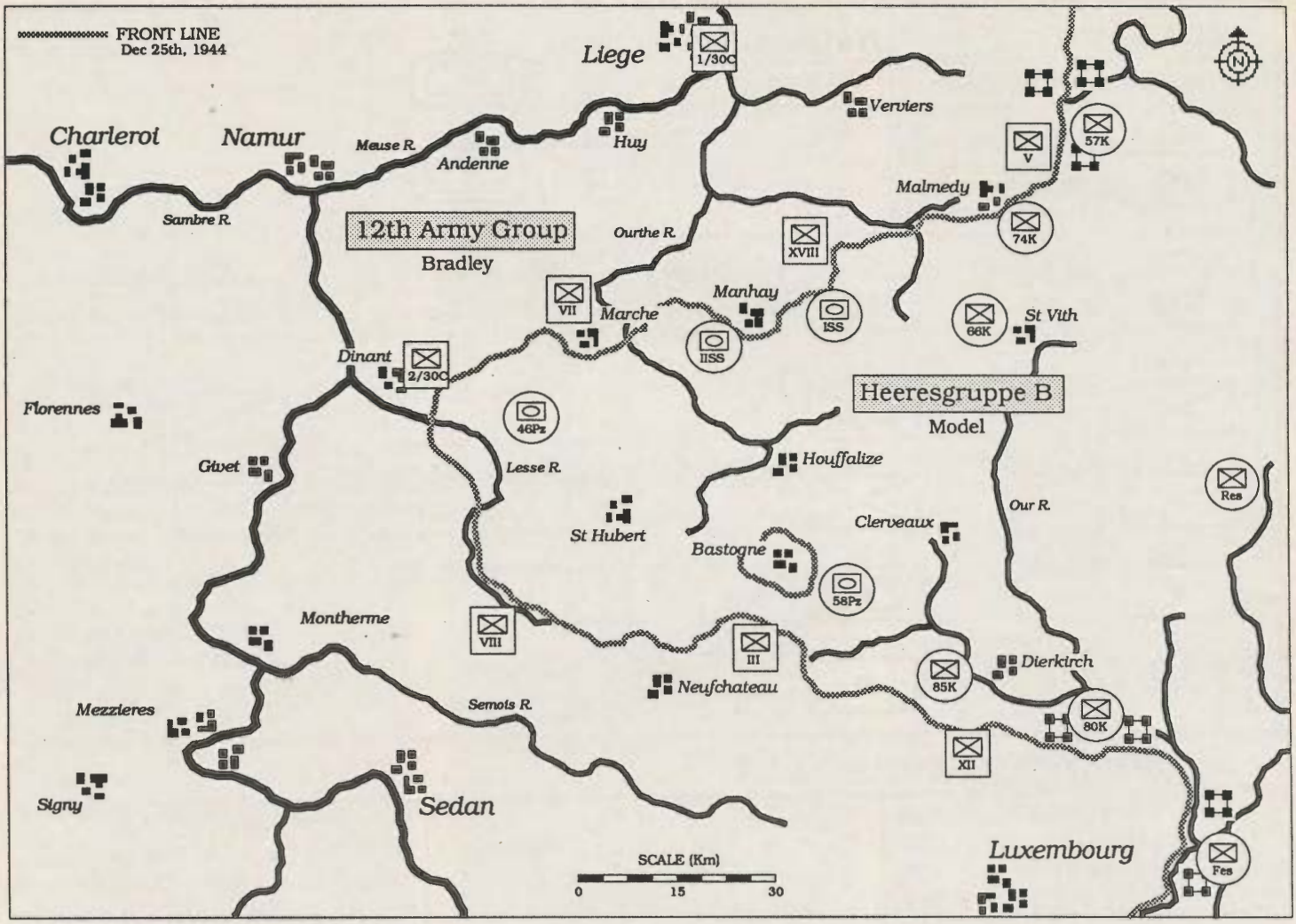


HEADQUARTERS DATA

FORMATION	HQ	XXXX HQ	1/CORPS	2/CORPS	3/CORPS	4/CORPS
HQ I.D.	[8]	7th Army	80 Korps	85 Korps	Festung	Army Res
UNIT TYPE	[8]	Infantry	Infantry	Infantry	Garrison	Infantry
HQ ADMIN	0-7	5	5	5	4	5
LEADERSHIP	0-7	5	4	5	2	5
HQ SUPPLY	0-7	3	5	5	7	7
BRITTLE	0-1	0	0	0	0	0
MOVEMENT	0-31	4	N/A	N/A	N/A	N/A
ARRIVAL	0-99	0	N/A	N/A	N/A	N/A
LOCATION	(x,y)	30,20	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	D/C	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	212	276	80		5Fl	352	JPz	85	1/F	2/F	3/F		167	246	340	Res	3PG	JPz		
LOCATION	(x,y)	34,22	31,21	32,20		25,18	28,20	29,19	26,18	34,27	35,25	36,24		38,16	38,16	38,16	38,16	25,17	27,19		
CLASS	0-13	0	0	13		3	0	10	13	0	0	0		0	0	0	13	2	10		
MODE	0-3	0	0	0		0	0	0	0	0	0	0		0	0	0	0	0	0		
EQUIPM'T	0-31	3	3	4		7	3	16	4	11	11	11		3	3	3	4	9	16		
MOVEMENT	0-31	6	6	1		6	6	10	1	0	0	0		6	6	6	1	10	10		
ARRIVAL	0-99	0	0	0		0	0	0	0	0	0	0		0	0	0	0	0	0		
MAX STREN.	0-15	9	9	8		12	9	4	8	3	3	3		9	9	9	8	9	4		
INIT. STREN.	0-15	8	8	7		9	8	3	7	3	3	3		9	9	9	8	8	4		
RATING	0-15	8	7	8		8	7	8	7	8	8	8		7	7	7	8	8	8		
RANGE	0-15	0	0	5		0	0	1	4	0	0	0		0	0	0	5	0	1		
FATIGUE	0-7	6	6	7		5	6	5	7	7	7	7		7	7	7	7	7	7		
EXPERIENCE	0-7	5	4	4		5	4	4	4	3	3	3		4	3	4	4	5	4		
ATTACHM'T	0-4	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	2	2		



Situation Map for Scenario Two

location. Select <CLEAR> from Menu J and erase both map and data. Save again in the same location. This procedure prepares the template on which we will build either of the Ardennes scenarios.

The WarPlan™ menus are displayed on the back of the game menus card. Refer to this when necessary.

If possible, we recommend you prepare this scenario with any of the *Halls of Montezuma*, *Rommel* or *MacArthur's War* master disks. If you are using the earlier *Battlefront* or *Battles in Normandy* master disks then a few variables will have to be omitted. These are noted in the text. Note that these restrictions apply only to Apple II and C-64 users.

Corps Details [5.31]. Enter the data from the Briefing table.

Scenario Details [5.32]. Enter the data from the Briefing table. Ignore the Century, Climate, Brittleness and Night Capable variables when using the BF/BIN master disks.

Map Size [5.11]. Enter the data from the Map Size table.

Define Terrain [5.12]. Enter the data from the Terrain Effects Chart. If you are using a HOM/ROM/MW/PZ master disk on the AII or C64 or any IBM, Mac or IIGS master disk, you can use WarPaint™ to create the customised terrain icons of your choice.

Define Miscellaneous Factors [5.13]. Enter the relevant factors from the Miscellaneous Factors table and the appropriate part of the Terrain effects Chart.

Create Map [5.14]. Use the accompanying map to build up the screen map. Do not forget to assign control to each hex as indicated by the Front Line marking on the map.

Save the game again. How often you save really depends on how lucky you feel. After several major disasters, I choose to save after each section is completed.

Equipment Roster [5.22]. Enter the data from the Equipment table.

Troop Creation [5.21]. The Germans and Allies each have three armies. Enter the data from the OB charts into the appropriate locations.

Objectives [5.23]. Enter the data from the Objectives table. Note there has been an additional variable introduced into the Objective data base in *Rommel* (IBM), *Halls of Montezuma* (Mac, IIGS) and *Panzer Battles* (all versions). Objectives which have a senior HQ assigned to them may be designated as defensive objectives. Only the specified senior HQ will be affected by this condition and it operates only while the objective is under friendly control. A junior HQ from the specified senior HQ will be despatched to the objective and will defend it as long as the time reference applies.

Note that the movement mechanics in the IBM/Macintosh/IIGS versions are more efficient than those in the AII/C64 versions and this may slightly alter play balance.

Minor Combat Effects (All IBM, Mac,

IIGS and *Panzer Battles* AII/C64) [5.33]. The Fort Enhancement values are Axis 7, Allies 2. The City Enhancement values are 0. The General Enhancement values are 5. AII/C64 users may wish to experiment with play balance by altering the general enhancement values. Note that you will need the *Panzer Battles* master disk or the complimentary *Battlefront System* master disk given out to C64 disk subscribers with Issue 14.

Finally, save again and the scenario is ready to play.

NOTES FOR IBM USERS

IBM users with CGA, MCGA, Tandy or Hercules graphics, or using the first edition of *Halls of Montezuma*, can create the scenario using the advice given above.

IBM users with EGA or VGA cards and the *Rommel* (or subsequent) master disk have access to our "full-map" graphic routines. When creating the map or the unit icons, you must first disable the "full-map" graphics. To do this, run the program as rom f which will by-pass the "full-map" graphics. Select a scenario as a template as explained above and save it in a save-game location. Build up the map in the usual way and save when finished. The rest of the data for the scenario may be entered with the "full-map" graphics either disabled or enabled.

Re-boot the program (this time with the "full-map" graphics enabled) and use the "full-map" *WarPaint*™ tool to build up the map. In other words, the "full-map" graphics are only graphic images and do not affect the play of the game.

For a detailed description of the procedure, read the article in Issue 14.

A NOTE ON .LBM FILES

The .lbm files contain the graphic images. DPaint2™ from Electronic Arts can be used to manipulate the file. Up to 250 hexes can be created but DPaint2™ must be used to change the size of the .lbm file. To do this, use the 'Page Size' function to alter the height of the file.

The Battlefront *System* program reads the size of the .lbm file on loading and adjusts the *WarPaint*™ values automatically. If you don't want to worry about manipulating .lbm files, choose a scenario with a 250-hex .lbm file as the template to build the new scenario on.

When saving an .lbm file, a temporary file is created first. When the temporary file is successfully saved the original is deleted and the temporary file renamed. This means there must be enough space on the current disk to hold the temporary file.

A NOTE ON THE GAME SYSTEM

In contrast to most board games, movement allowances are expended after a unit has moved into a hex; i.e. provided at least 1 MP remains, a unit will always move one hex. Only the Battle*front Game System* handles movement this way. Our other games all require a unit to have the full cost of moving into a hex available before they can move into it.

PLAYER'S NOTES

Scenario One

Germany. The objectives are simple. Get to the Meuse! Do not get involved in battles of attrition with the strong Allied forces in the northern and southern sectors of the battlefield. Screen these threats and send your mobile formations due west to Houffalize or thereabouts before turning north/northwest to the objective cities of Liege and Dinant.

Your infantry divisions are pretty weak and will crumble if caught in the open. Beware of the low supply value of each army. As your corps supply runs out, you will have difficulty replenishing it. Send your reinforcements along the lines of least resistance to objective cities. Finally, pray for continued bad weather.

Allies. The biggest problems confronting you at the start of this scenario are a shortage of men and the fragmented nature of your corps commands. All this will right itself as the battle progresses but in the meantime you must be careful to prevent your forces from being chopped up piecemeal. V Corps should be able to hang onto the Monshau area but between there and Dierkirch there will be little you can do to prevent the elimination of the hapless defenders.

As soon as a corps reaches 75% available, it can be committed to serious action. Mass your overwhelming artillery support when you attack for best results. If the weather clears, the addition of air support will be of great assistance.

Scenario Two

Germany. Whether you like it or not, the German offensive has just about run out of steam. You can try to push on to Dinant and/or Liege if you feel lucky or may more prudently choose to try and hang onto what you've got. In either case you will face a strong enemy, supported by plenty of artillery and air support. Local attacks should be made, especially with the strong ISS and IISS Panzer Korps, whenever you suspect the opposing forces are forming up or attacking themselves.

You need to hold onto most of the objectives within your start area as well as minimizing your losses to force a win.

Allies. The tables are turned in this scenario. All of your forces are on the map although some are still forming up behind the front line. The first job is to take the pressure off the 101st holding out in Bastogne. The German panzers are still dangerously concentrated around Manhay and have to be watched closely.

Constant probing against the enemy will slowly reduce his supply state, making his divisions more susceptible to rout. By game's end, you should plan to recapture St Hubert, Houffalize and Dierkirch.

VARIANTS

Both Scenarios

(1). The German plan called for the release of the strategic reserve as soon as the Meuse River bridges were captured. In the event, the Germans never got that far and the reserve remained uncommitted. We can examine its possible effect on the situation by making these three armoured divisions available. The units are found as the fourth junior HQ (Str Res) of 5th Panzer

Continued on p. 44

THEIR FINEST HOUR

Gregor Whiley Reviews the Popular Lucasfilm Game

Squadron Leader James "Bongo" Fury gazed moodily at his typewriter, and for the fiftieth time, considered chucking the wretched thing through the window. It was always like this. After the excitement and exhilaration of combat came the awful truth. He had to write another fictional opening for a review of Their Finest Hour.

Bongo knew the form. Write in the third person and do it badly. Start with the silk scarf, dwell momentarily on the tremendous odds you were facing, and then into the air. A few tortured paragraphs mentioning the flashing shapes of the enemy, bullet filled skies and your shots invariably hitting home and a casual mention of your own remarkable skill and then plough into the review. What a hopeless show. There must be another way. Bongo had even heard that a Squadron Leader Bigglesworth had hired a hack writer called Johns to do his writing for him. Might be something in that, mused Bongo, but, hang it all, it was much more fun fighting the Germans.

If anything in the above lines is true, it is the last sentence. Their Finest Hour is absolutely the most fun you can have in an air combat game. It is presented, amongst other things, as a flight simulator, a point open to some debate, but it doesn't matter what you call it. The game is just hugely enjoyable, and very addictive.

Their Finest Hour is superbly presented, with a huge rule book full of historical information and photos, as well as the necessary game info. The potted history of the Battle of Britain is well done, and the incidental information varied and interesting.

The IBM version was reviewed on a 12 MHz 80286 compatible, with EGA graphics and a hard disk. Program speed was quite good on this machine, though I suspect an 8088 machine might find the going tough. Some delays are noticeable if the action gets particularly furious, and switching views causes a noticeable pause, but these are not really a problem. Not surprisingly, on Roger's slick 25 MHz 80386 machine with VGA, there were no delays.

TFH presents a series of scenarios, all taken from the Battle of Britain. That's what you would expect from the title, but these are actual missions, and if you hit the briefing button, you can get the details on what really happened before you try to do it yourself. It's more than just a nice touch, it's an impressive piece of research that adds a lot to the game.

GAME MECHANICS

In the game you can fly a variety of planes, Hurricanes and Spitfires for the British, Me 109s and 110s, Ju 87s, He 111s, Do 17s and Ju 88s for the Germans.

The opening and ancillary screens are well presented, but obviously the meat of the program is the bit with the gunsight. The cockpit panels are superbly painted, and the instruments are detailed and easy to read. The view out of the cockpit is pretty standard for flight simulators, although the other planes in the air are very well rendered, and a cut above the average.

TFH does all the standard flight simulator things very well, but its real achievement is in all the extra elements that it gives you. For starters, in any plane you can play all of the available crew positions. Thus in a Me 110 you can switch between pilot and gunner instantly, in the middle of a flight. In a bomber, there are up to five gun positions, as well as pilot and bombardier.

In a typical bombing mission, you might start out as the pilot and line up your target, then whip round to the dorsal gunner's position to fend off some pesky Brits, come back to the pilot's position for final approach, nip down to the bomb aimer's view to plaster the target, back up as the pilot to rev up the engines and kick the plane into an emergency turn back to France, then return to dorsal gunner's duty to defend yourself on the long run home. As you can see, there is very little chance of getting bored, especially over the target where things get a trifle busy.

The gunner positions are very well rendered, and a lot of fun to play as well. In a single seater there are obviously no gunners, but you can get views over each wing, and behind and below. The view over the wing of an Me 110 consists mainly of wing and engine, but it is a masterpiece of computer art. The artists for this game deserve a lot of credit for their efforts, which contribute greatly to the pleasure of playing the game.

FLIGHT MECHANICS

This area of TFH shows a fairly ruthless application of a single philosophy, to

make flying simple and fun. Lucasfilm had an advantage in that there aren't that many things to push or pull in a WWII aircraft, but they've certainly taken an orbital sander to the rough edges of reality. Control of the aircraft is easy, especially with a mouse. In fact, it's a bit too easy.

For instance, the only deviation from controlled flight that TFH permits is a stall, and even that simply results in gentle dropping of the nose and a more or less automatic recovery. No inverted flat spins for TFH fighter jocks.

Landing consists of getting your plane's wheels in contact with the ground in a roughly correct attitude. I was able to successfully land my Spitfire at a speed of around 250 m.p.h., a manoeuvre that probably did not fall within the scope of Air Ministry flying regulations.

The main thing is that the aircraft feel right. If you are trying to persuade a Heinkel to turn, you feel like ordering the bombardier to get out and push (and on a German plane he may well have done so). A Spitfire or Me 109 on the other hand is a delight to fly.

A more serious flaw is that aircraft, especially fighters, gain height too easily. All historical sources attest to the inevitability of losing height in a dogfight. In TFH, you can take a Spitfire, put it into an almost vertical bank, and still gain 8,000 feet before finally running out of puff. That just doesn't sound right to me.

COMBAT MECHANICS

The results of combat have also been pruned back a bit. Aircraft start out in 100% condition and degrade in a steady fashion, losing engine power and some control after critical points are passed. There are no lucky or critical hits in your engine, cooling system, petrol tank or even between the eyes. If you absorb too many bullets your plane will finally go into a spin, and if you don't bail out, you will be trapped in the plane and killed. Enemy planes will explode if you get them, as far as I can determine, yours don't.

I have no real problems with this approach, as Lucasfilm are just saving you the bother of reloading your character from floppy disk back-ups, by making it harder than it should be to die in the first place. That's not to say that the combat is a picnic. Its no fun at all trying to get a crippled plane back to France, with hordes of Spitfires boorishly intruding on an already difficult task.

The other major point in your favour is that the computer opponents aren't too flash as pilots, and with correct tactics (see below), you can always outfly them. Some of the fighter missions have you flying against Sailor Malan or Adolf Galland, but these are outright libels as the AI isn't really up to scratch.

From the point of view of dishing out the combat results, TFH couldn't be better. Animated tracer bullets fly out from your plane, and if you hit the enemy, bits fly out the enemy planes. Engines may start to spew smoke or catch fire, and if you give them enough encouragement, enemy planes will explode in front of you, a very gratifying result.

Similarly, as bomb aimer you can see your bombs all the way to the target, and the resultant explosions on the ground or in the water.

REPLAY MECHANICS

As well as all the dynamic flight simulation stuff, there is also an extensive replay system. Hitting the C key starts a camera running, and the resultant 'film' can be reviewed at any time during the flight, or even saved to disk. Once in the replay system, you can view the replay from your own point of view, from a chase plane position, or from a free camera position, which can be manipulated in three dimensions to view whatever you like. As well as being great fun to use, its also very useful and plays a large part in bombing tactics.

HOW TO WIN

Here at SSG, we don't just tell you how good things are, we tell you how to win as well. Performance in TFH is measured by points awarded for each mission, which are determined by overall mission performance. Thus, if you are in a fighter escorting bombers, points are awarded on how many bombers hit the target and return, not how many opposing fighters you shoot down. Bombers get points for hitting the target, and opposing fighters get points for stopping them.

As a player, you can control any one aircraft in a mission, by creating a pilot character, whose name and performance is recorded by the computer. The other planes in a mission are all computer controlled, but you can nominate other characters you have created to fly them as well. If you don't, the computer controlled planes on your side will be flown by absolute novices, while your computer opponents will probably be aces, so creating a good flying team is essential.

When you first start it seems a bit hard to work out what to do to get points, but there is a method that works. My tip is to start out on bombers first. If you start out as a German fighter pilot, your performance will be held back by the abysmal bombing of your novices. If you fly as a British fighter pilot, you have to deal straight out with both German bombers and fighters, which is quite difficult. Starting with the bombers gives you lots to do straight off.

LEVEL BOMER AIMING

The trick to level bombing is to use the autopilot. It's actually quite difficult to maintain an exact course and height flying hands on. What you want is a repeatable bombing run and the autopilot provides this. Take up a no-name pilot, do the bombing run at the same height and speed each time using the replay facility to correct your aim until you get it right. When you get your aim point right, write it down.

In a real mission, choose your course to the target carefully. If you're bombing buildings, the correct course will track you over more than one building, so you can bomb two of them and get more points. Turn on the autopilot and go down to the bomb aimer's position when you are close. Don't linger there, get straight back to the pilot's seat and turn the bus around for France pronto as soon as the bombs are away.

STUKA BOMBING

It's very easy to hit things when dive bombing from a Stuka. Line up the target first and fly almost overhead, extend the dive brakes, put the thing into steep dive, and line the target up with the bottom of the gun-sight, not the middle. Release the bombs by about 2,000 feet, but don't necessarily

pull out straight away. When you're really good, you can line up two sets of buildings, bomb one, lift the nose slightly and get the other one as well. Treasure the pleasure of accurate bombing in a Stuka, as the trip home is murder.

ME 110 BOMBING

There is no bomb aimer in a 110, there's just the pilot and the rear gunner. You have to bomb from the pilot's position, and the way I do this is to get very low. For instance, there is a 110 scenario where you are invited to bomb some ships in a convoy, then protect some Do 17s. You start out at 4,000 feet. Dive to 150 feet, lining up the ship as you do. Then engage the auto-pilot and wait till the ship just starts to disappear below the bottom of the cockpit view, and bomb. As soon as the bomb leaves the plane, run up the engines to full throttle and prepare to deal with the Hurricanes who will be arriving.

For extra satisfaction, bomb the first ship with your first bomb, shoot down all the Hurricanes and then bomb the other ship at your leisure. You don't get any more points for bombing two ships as opposed to one, but you feel better.

FIGHTER VS FIGHTER

This is probably the most disappointing part of the program, as computer controlled fighters are very dumb. Even if they are right behind you, a hard bank usually suffices to throw them off. If not, just put the nose up and climb as hard as possible. Your opponents will continue in level flight. At the top of your climb when you are almost stalling, you can either do a half roll so you can see where they are beneath you, or just put the nose down, and end up behind them. When you end up behind them they seem remarkably relaxed about the situation, and you can then count on being able to polish them off. They don't do the violent manoeuvres you would do, and if they do go into a zoom climb, you can just follow them up and shoot them to pieces.

Do not accept head on combat with another fighter. If you are closing head on, try to get the other plane committed to a dive or climb in order to meet you, then do a quick diving turn the other way underneath them, which you can continue into a 180 degree turn to get on their tail.

Things get out of hand in these missions, as my ace German fighter pilot has flown ten sorties and shot down 65 enemy planes, roughly 10% of Fighter Command strength. This is the clearest indication that TFH is a game rather than a simulator. Its usually even easier on escort missions, as the Brits concentrate entirely on the bombers and pay even less attention to you.

FIGHTER VS BOMBER

This applies only to British fighters as the hopeless Bomber Command ops that did take place during this period were totally irrelevant to the Battle of Britain. Shooting down bombers remains a real challenge in the game. If you run at them from dead astern, you will be deservedly shot down, just as you shoot down fighters when you are in a bomber. However, when you make almost maximum deflection attacks at

MAKING MAPS
Continued from p.18

situation and intersperse them to break up the pattern.

It has become an unwritten convention to paint the names of objectives on the map. This is a difficult job since even a small, five by three dot, font will tend to cause names to drift across adjacent hex images. Many of you who sent scenarios in have adopted a similar style to mine, that is to try and line up either the top of the text with the top of the hex, or the bottom of the text with the halfway mark on the hex, making it easy to line up in the next hex along. Avoid letting text reach the edge of a hex such that it needs its top half drawn in the next hex right and up, while its bottom half appears in the next hex right and down.

The Crystal Ball

Decisive Battles of the American Civil War is on its way and part of this project has been to revamp WarPaint™. As a result, version 2.0 of WarPaint™ will be incorporated into version 1.3 of *Halls of Montezuma*, *Panzer Battles* and all future releases. This version appears quite different to the first because it uses more effective, smaller windows and now includes, among other new icons, the paint fill tool (See fig 2).

More tools may be added to WarPaint™ 2.0 prior to its release and certainly this will be an on-going upgrade. It has already been correctly configured to cut and paste to and from the normal clipboard mechanism. Now icons can be worked on in other paint programs and transferred between scenarios via the scrap-book. For *Decisive Battles* it will allow the colors in the palette to be redefined so you may create scenarios with fourteen shades of green if you so wish. This function may not be available for the *Battlefront* system since it would require a major file format change which would make new scenarios unusable to old versions of the program; we're still thinking about this.

What about Version 3.0 and beyond? WarPaint™ is obviously useful in those applications which have hex based images but many would think that with a game where the entire map is one large PICT (Yes, they're under development) there is little use for it. Wrong. There are the units, control markers, fort emplacements, a whole host of counters that should be available for editing by the scenario maker. This means that WarPaint™ will be developed for a long time to come, and each improvement will feed back to applications that already use it (It's just a matter of recompiling and linking). Certainly there is need for more tools such as Square, Line and Circle tools, Selection tools and redefinable paintbrushes. There is also an embryonic design for some form of icon library system that will allow you to define hundreds of icons that can be easily copied into a scenario.

Over time the system will become more and more flexible, and with Roger, Stephen and myself heading up a tightly co-ordinated team (this is programmer talk for an elitist clique), this philosophy will appear across machines (IBM, Amiga, Atari etc.). We will continue to produce scenarios with varied styles that can act as example kits for your endeavours. You will be able to produce for yourself more and more impressive graphics, perhaps forming groups to share artistic ability and research historical scenarios as we have done here. Give us as much feedback as you can and enjoy yourselves. ◆

Don Stephano Tells... Continued from p.17

Judge: Don't try to be funny, Don Stephano. I wear the funny hat in this court.

Don S: Sorry, my lord. The English and French aren't as constrained as the civilised Iberian races because they start development later and their colonists tend not to revolt unless grossly mismanaged. They can develop quite early in the sequence.

Judge: What can I do about my best colonies being raided?

Don S: Not a lot my lord. Soldiers will provide some defense and it can be worth defending somewhere like the Mato Grosso goldmines if you are Exploiting. Normally, however I follow the Golden Rule.

Judge: Which is?

Don S: Do unto others before they do unto you.

Judge: I'm not sure you've got that right Don Stephano.

Don S: Maybe not, my lord, but it works.

Judge: Any advice on general strategy, Don Stephano?

Don S: The Spanish player has, as is only right, the greatest influence on the course of the game. He decides the direction in which he will explore and colonise and the Perfidious English and the Diabolical French must take what's left. Our Portuguese brothers are, of course, limited to the eastern part of South America by the wisdom of his holiness, the Pope.

One possible alternative strategy by Spain is to ignore South America completely and concentrate on the north. This foregoes the privilege of looting and exploiting some very rich provinces but it forces the Diabolical French and the Perfidious English to colonise at least partly in that area. Of course this treacherously puts them at odds with our Portuguese brothers, but then we are a treacherous race are we not?

Judge: Quite. It also sounds too clever by half.

Don S: I must admit, I tend to go for the money and worry about the strategy later. A little bit extra in the Secret Funds makes up for a lot of strategic planning. A few extra armies means a better chance of an invasion succeeding and another jewel in his Majesty's (long may he live) crown.

Judge: Is a successful invasion just a matter of armies?

Don S: The explorer is also very important. A one-star explorer will tend to bungle the best opportunities. Also, you should plan your invasions so that you have as many colonies as possible adjacent to the target. This helps a lot. A three-star explorer with six armies and three adjacent colonies is just about unstoppable.

Judge: Thank you, Don Stephano. That seems to cover just about everything. We shall take your confession into account when sentencing. There is just one small inconsistency I would like to clear up first. How is it possible that you could demolish such brilliant game players as the Comte de la Truite and Sir Roger Keatynge (BART), simply by playing to the rules? *(long pause during which Don Stephano looks more and more unhappy)* Well, Don Stephano?

Don S: You're too clever for me, my lord. All right, I'll confess it all. Ah, the shame on the Sangria family name. There is a secret control key.

Judge: Ah-ha! And what is it?

Don S: My lord, the secret control key is ... (gasp) ... the control ... (gasp) ... key ... (gasp) ... is ... arghhhhhh!

Subsequent examination by the Royal Physician revealed that the aged Don Stephano at this point expired of a heart attack, no doubt brought on by the stress of the trial and the shame of his final confession. Treacherous to the last, he died prevaricating about the secret control key. After extensive testing, the SSG editorial staff have failed to find any point in the game in which typing "Ctrl arghhhhhh!" confers any noticeable advantage. ◆

bombers, which you know you couldn't do anything about as a gunner, the pesky German gunners still manage to get you. They don't usually do much damage, but they do wear you down, and after shooting down three or so bombers, you may get so shot up that the escorting fighters start to become dangerous.

For this reason, 110s and Stukas should always be approached from below, or from the beam. There is a technical term for those who attack 110s head on, they're called parachutists. Stukas fly in a cute stepped up and back defensive formation to cover each other, so a beam attack is necessary to break this up.

CONCLUSIONS

It is pretty clear that Lucasfilm have taken a very relaxed view of the simulation process, and that TFH is really a game rather than a simulation. I asked some questions on Compuserve about TFH, and Noah Falstein from Lucasfilm, and he cheerfully admitted that they had altered flying and combat characteristics to make the game more enjoyable.

However, almost all of these alterations make the game more, rather than less, enjoyable. Lets face it, a 'correct' simulation would have many 'wasted', patrols with little or no contact, and in any combat that did occur, there would be a very real chance of death through elements totally outside your control. Most dogfights would be a confusing mish-mash and there would be weather and other real world manifestations that would take the fun out of your day. People just don't want that much reality in a game, they play them to feel in control, not to experience the random slaughter of war.

This is the bit in reviews where pompous reviewers, who have the same understanding of game processes as a retarded tree frog, usually explain how they would have designed the game under review, and naturally in the process produce a masterpiece. Although I have gone into some detail on the design decisions in TFH, I happen to agree with the decisions Lucasfilm have made. My only real complaint is with the AI of the fighters. If that were improved then dogfights wouldn't be two against ten, and the ridiculous kill figures would disappear.

Regardless, I think that TFH is a terrific game. The close combat is so much more exciting than modern air combat, where you can destroy aircraft you never see. The extra bits that Lucasfilm have packed in make the whole game a pleasure to play from start to finish. Its a superb package, and I highly recommend it. ◆

KONIGGRATZ
Continued from p. 15

Scenario Details [5d(ii)]. This is a single day scenario. Enter the following data for Day 1. The weather is Clear (0), the North is Offensive (1) and the South is Defensive (0), 5 am to 6 am are dawn (1), move (1), heavy fog (2) turns, 7 am to 8 am are day (3), move (1), heavy fog (2) turns, 9 am to 10 am are day (3), move (1), light fog (1) turns, 11 am to 6 pm are daylight (3), move (1) turns, 7 pm is a dusk (2), move (1) turn and 8 pm is a dusk (2), END (2) turn.

Finally, save again and the scenario is ready to play.

NOTES FOR IBM USERS

IBM users with CGA, MCGA, Tandy or Hercules graphics can create the scenario using the advice given above. There is a minor change in the weapons data base. You do not have to set limits for weapons. There is space for 31 weapons of each type.

IBM users with EGA or VGA cards must first create the game map with the "full-map" graphics disabled. To do this, run the program as DB2 f (or DB3 f or DB1 f) which will by-pass the "full-map" graphics. Select a scenario as a template as explained above and save it in a save-game location. Build up the map in the usual way and save when finished. The rest of the data for the scenario may be entered with the "full-map" graphics either disabled or enabled. There is a description of "Full Map" graphics elsewhere in this issue.

Re-boot the program (this time with the "full-map" graphics enabled) and use the "full-map" WarPaint™ tool to build up the map. In other words, the "full-map" graphics are only graphic images and do not affect the play of the game.

A NOTE ON .LBM FILES

The .lbm files contain the graphic images. DPaint2™ from Electronic Arts can be used to manipulate the file. Up to 250 hexes can be created but DPaint2™ must be used to change the size of the .lbm file. To do this, use the 'Page Size' function to alter the height of the file.

The Decisive Battles program reads the size of the .lbm file on loading and adjusts the WarPaint™ values automatically. If you don't want to worry about manipulating .lbm files, choose a scenario with a 250-hex .lbm file as the template to build the new scenario on.

When saving an .lbm file, a temporary file is created first. When the temporary file is successfully saved the original is deleted and the temporary file renamed. This means there must be enough space on the current disk to hold the temporary file.

VARIANTS

1. The Prussian Second Army, nominally under the command of H.R.H. the Crown Prince of Prussia but in reality led by Maj-Gen. Blumenthal, did not get into position until the afternoon after a fair amount of dithering. A more resolute commander would have responded earlier to von Moltke's orders. There a two ways to simulate a faster response. The simplest is to bring forward the arrival times off all units in Blumenthal's Corps, as well as the corps HQ itself, by 3 turns. More interesting is to bring forward the arrival times of Blumenthal's men by 5 turns and to set the likelihood values for all these units to 4.

2. Benedek's plan for the Austrian Army was vague, incomplete and hopelessly defensive. Which is why the staff and leadership values for the Austrian corps are so poor. Had a better soldier commanded the army, the disjointed Prussian attack may very well have been routed. Give all Austrian army and corps HQs a movement value of 9. Add 2 all staff ratings and 1 to leadership ratings. Give the Austrian Army HQ the offensive objectives of Sadowa (3) and Racitz (17). The variant will make a tremendous difference to the result, so balance the situation either by using variant 1 as well or adding 10 VPs to the end-of-game values for all Prussian objectives.

PLAYERS' NOTES

Austrian. The big problem you have is that not all of your corps commanders will do what you tell them and you will have to go to them personally and persuade them to join the battle. The main danger is in the north, especially with the arrival of the Prussian Second Army. There are a couple of unsupported Prussian brigades on the east bank of the Bistritz and these can be mauled in the early hours of the battle.

Try and hold the river line for as long as you can where your superior artillery can cause damage. Beware your infantry small arms fire is much weaker that that of your opponent and if you engage in a fire-fight, you'll get beaten.

Prussian. You have to make the running in this scenario. Your infantry are superior to the enemy but your artillery is pretty useless. Force the Bistritz at Sadowa as soon as possible and drive on to Maslowed and Chlum. If you can make Wsestar by game's end, then you'll make Bismarck proud.

Bittenfeld's Corps can take Nechanitz and possibly Hradek but it is unlikely to get much further against the capable Saxon Corps. It is in the north you must beat the Austrians. Do not let them get established anywhere. If they do, they can employ their powerful artillery and cause a lot of trouble. ◆

ARDENNES
Continued from p. 39

Army. They are listed in the OB table with bracketed combat strengths. If you are building up the scenario yourself, simply enter the data as given. If you have a subscription scenario disk, go to the Strategic Reserve formation and change the combat values from 0 to the bracketed values in the OB table.

To balance the addition of these forces, change the VP value of destroyed German mechanized strength points to 5.

(2. Scenario One only). The atrocious weather over the opening days of the battle played a major part in the initial German success. Better weather can be simulated by changing the initial weather to heavy overcast and the forecast to stable. Increase the reliability of Allied air superiority to 3.

(3. Scenaio One only). Allied inteligence failed to warn of the German build-up. To simulate a better prepared response, bring forward the arrival of all US re-inforcements by 4 turns. ◆

Strategic Studies Group Presents...

GAINES MILL
STONES RIVER
GETTYSBURG
CHICKAMAUGA
CHATTANOOGA

Can you, standing in for Robert E. Lee, stall McClellan's Federals outside Richmond... ?
Or will you, as George Gordon Meade, stop the Army of Northern Virginia at Gettysburg and fatally turn the war against the Confederacy... ?

THE CIVIL WAR

WILDERNESS
SPOTSYLVANIA
COLD HARBOR
ATLANTA
FRANKLIN
NASHVILLE

Can you, commanding the veterans of Robert E. Lee's Army of Northern Virginia, stop Ulysses S. Grant's Army of the Potomac from capturing Richmond... ?
Or will you, as William T. Sherman, defeat Joe Johnston, destroy Atlanta and march to the sea... ?

The ***Decisive Battles Game System*** lets you step into the past and command the armies which fought out these great battles. The simple menu structure which drives the game is so easy to use that you'll be issuing orders like a veteran ten minutes after booting up the disk. You'll have complete control over the computer battlefield when you use the comprehensive wargame construction set, **WARPLAN™**, and our unique graphics editor, **WARPAINT™**.

WARPLAN™ lets you construct original battles of your own design as well as creating endless variations to the historical scenarios. **WARPAINT™** gives you complete graphic control over the icon and terrain symbols used in the game. Shapes and colors can be changed at will to produce your own special effects.

Available now for the Apple II Family and C64/128 computers. Available early 1989 for IBM, Amiga, IIgs, and Macintosh.

The Korean War

'Across the 38th'
Taejon
Naktong Bulge
Unsan
Chongchon
Chosin Reservoir
Chipyong
Imjin

The ***Battlefront Game System*** mechanics are so simple to use, you will be issuing orders like a veteran within ten minutes of assuming command.

You'll have complete control over the computer battlefield when you use the comprehensive wargame construction set, **WarPlan™**, and our unique graphics editor, **WarPaint™**.

Available now for the Apple II Family and C64/128 computers. Available early 1989 for IBM, Amiga, IIgs, and Macintosh.

Conquer Your Galaxy

Reach for the Stars *is our all-time classic game of space exploration and conquest. The third edition contains two great games in one: the original* ***Reach for the Stars*** *and an entirely new scenario, with lots of options for advanced play. It's a four-cornered contest for domination of the galaxy and there's only one winner. The computer plays all places not taken by humans and it never gives anyone an even break.*

To win a game of ***Reach for the Stars*** you must have explored the galaxy and colonized the choicest portions. You will have expanded your industry, engaged in R&D, and produced a huge navy. This will have been employed in settling disputes with your neighbours. As always, the biggest navy gets to adjust the border.

Whatever your qualifications as a space tyrant, ***Reach for the Stars*** is guaranteed to be totally addictive. . .

Available now for IBM, Amiga, Macintosh, IIgs, the Apple II Family and the C64/128.

How to Purchase. In North America, visit your retailer or call Electronic Arts 800-245-4525 (in CA call 800-562-1112) for VISA or Mastercard orders or write to Electronic Arts, P.O. Box 7530 San Mateo, CA. 94403. In Australia, write to SSG, P.O. Box 261 Drummoyne, 2047.

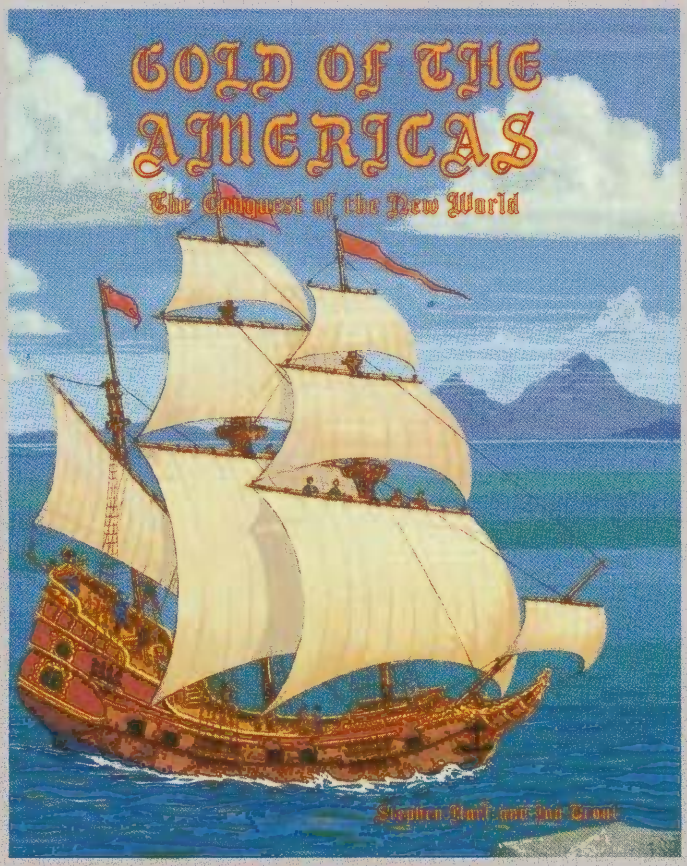
Strategic Studies Group

invites **YOU** to step into the past and make **YOUR** contribution to the exploration, colonization and exploitation of the

NEW WORLD

No Experience Necessary

(although a taste for larceny and skullduggery won't hurt your chances)



Gold of the Americas gives up to 4 players the opportunity to embark upon a lively and entertaining journey through history. You play the role of one of four powerful European nations (Spain, Portugal, France or England), guiding your country's endeavours in the New World for the three-hundred year period from 1500 to 1800.

In each ten-year turn, you have the opportunity to

- raise and deploy armies, procure colonists and slaves, equip trading vessels, galleons and privateers and outfit expeditions to explore unknown territory
- pillage the mighty Aztec and Inca Empires
- mine gold and mineral resources
- encourage your colonies to prosper by investing in development
- discourage your colonies from becoming independent by placating them as soon as they get restless (I mean... who needs a United States of America?)
- raid the possessions of your rivals and, when the opportunity arises, invade and add them to your Empire
- learn to live with the rapacious demands of greedy monarchs (siphoning off as much loot as you can for your personal use isn't really tax evasion... it's more like providing for a rainy day)

so that by 1800, if you have gained greater glory for your King and Country than any of your opponents, you can be sure you will get your just reward. And don't worry... your computer will gladly take any positions not occupied by humans. Just don't pick on veteran computer opponents for an appetizer.

Available now for IBM, Amiga and Atari ST computers. Soon for Macintosh and Apple IIGS.

Screen shots taken from the IBM version

How to Purchase. In North America, visit your retailer or call Electronic Arts 800-245-4525 (in CA call 800-562-1112) for VISA or Mastercard orders or write to Electronic Arts, P.O. Box 7530 San Mateo, CA. 94403. In Australia, write to SSG, P.O. Box 261 Drummoyne, 2047.

FIRE KING
Cluebook

Table of Contents

1. How to Use the Clue-book S1
2. List of Adventures S2
3. The Story of Fire King S2
4. Part I - The Tomb of the Fire King S3
5. Part II - The Fire King's Palace S4
6. Part III - The Earth Mage's Halls S7
7. Part IV - The Water Mage's Fortress S10
8. Part V - The Wind Mage's Tower S13
9. Part VI - Under the Mountain S15
10. Appendix S17
11. Index to Levels S19

© 1990 Strategic Studies Group
Micro-Forte

HOW TO USE THIS CLUE-BOOK

Welcome to the World of Fire King! A world filled with adventure, excitement, and hundreds of places to get stuck. Not any more! Armed with the tips and clues compiled over three entire generations of hunchbacks, you will at last be able to overcome that frustrating level that has given you sleepless nights for the past two weeks. "Stuck" is no longer a part of your vocabulary!

This clue book is designed to be used either as a complete step-by-step guide to completing Fire King, or as a reference that you can use from time to time should you become stuck.

The game is divided into several self-contained adventures. These adventures are listed below (there are six adventures in all). If you wish to play through the game, begin with adventure I. The clues for adventure I are included in your game manual, along with the background story, but both are reprinted here for your convenience.

Note that only the levels that you must play to complete the game are in Chapter 5 (The Clues...). These hints are presented in a story format, and tell you what you need to do to get through. Follow the clues in the order they are presented and you will successfully conquer Fire King.

At any stage during play you can get help by looking through the "Adventure List". Find the name of the part that best describes where you have got to, then turn to that chapter in "The Clues" text.

If you have strayed from the path (as can happen to the best of adventurers), and cannot easily find the part where you are stuck in the "Adventure List", do not despair. There is a complete "Level Index" at the back of this clue book. To use the "Level Index", first find the name of the level that is giving you problems. The level name is shown in the books that appear as you go from one level to the next, the IBM version also prints the level name in the pause menu. Locate the level name in the index. This will direct you to the section that describes how to complete that level.

One final word for the adventurous adventurers. There is an appendix at the back that contains clues for levels that are not essential in the completion of the game, but ones that you might either find yourself wading through by mistake, or wish to go back and abuse. Mount Deception is particularly nice if you're having not-enough-relic problems.

LIST OF ADVENTURES

Part I. The Tomb of the Fire King

1. Exploring the Town
2. Journey to the Death-Beast
3. The Death-Beast

Part II. The Fire King's Palace

1. Journey to the Palace
2. Through the Servants' Quarters
3. The Furnace Rooms
4. Fripp's House
5. Darkblood's Trap/The Door Maze/The Wall Maze
6. The Residential Quarter
7. The Floating Tower
8. Temple of the Fire King's People
9. Beneath the Fire King's Chamber

Part III. The Earth Mage's Halls

1. Things to do Around Town
2. Journey to the Earth Mage's Hall
3. The Bridge Keepers
4. The Walled Gardens
5. The Earth Mage's Hall
6. The Treasure Chamber
7. The Spies Back Room
8. Into the Mines
9. Stuck in the Cave
10. The Room of Judgement

Part IV. The Water Mage's Fortress

1. Help from the Oracle
2. The Three Jewels
   (i). The Whispering Grove
   (ii). The Oasis
   (iii). The Desert Ruins
3. The Pirate's Cave
4. Under the Molten Hills
5. The Underground River
6. The Subterranean Ocean
7. The Entrance to the Fortress
8. Salt-Breath's Cell
9. Back to town

Part V. The Wind Mage's Tower

1. The Outward Journey
2. The Giant Lock
3. The Tree Dwellers
4. Ascending the Wind Mage's Tower
6. The Wind Mages Workroom
7. The Black Room
8. Confronting the Beast

Part VI. Under the Mountain

1. Going under the Mountain
2. The Invisible Salamanders
3. The Geometric Bugs
4. The Earth Mage's Workroom
5. The Water Mage's Workroom
6. The Wind Mage's Workroom
7. The Corridors of the Powerful
8. Hotfoot the Master Firewalker
9. The Heart of the Fiery Volcano
10. Confronting the Wind Mage

THE STORY OF FIRE KING

Nestled in a valley between the great forests of the west and the rocky spires of the east, there exists a sleepy community. For as long as anyone can remember the land has been at peace. However, the people have short memories; the great slime-plagues of the past, and the many wars with barbarous neighbours, have been quickly forgotten.

In this land magic has become a common tool; almost all needs can be catered for through its subtle application. The people trust their wizard rulers to see that everyone is provided for, and many turn a blind eye to the plight of their less fortunate fellows.

A prosperous trade exists with other lands across the vast southern oceans. The townsfolk enjoy the riches that the trading fleet return, and nobody questions the loss of ships and seamen to foul weather and pirate attacks. Few are aware of the knife's edge upon which their existence precariously balances...

The harmony of the land is maintained by the four great elemental forces: Earth, Air, Fire and Water. Each force is ruled by a powerful mage. Of the four great mages the Fire King is King, and holds the Royal Court in his Palace of Fire, high on the slopes of the giant volcano in the north. No-one disputes his authority, or so we are led to believe.

The great mages get together occasionally to hold conclaves and discuss affairs of state. These meetings are always preceded by weeks of political manoeuvres in which the mages vie for any small leverage on each other in order to promote their private causes. The latest meeting is no exception, rumours abound about the underhanded dealings of the mages. A sudden eruption of violence shakes the fragile peace.

The townsfolk are shocked by the tragic news of the Fire King's gruesome death. The Wind Mage has dragged himself back to town with the story. A magical beast of super-human size and strength attacked the conclave. A terrible battle ensued that lasted for hours, magic electrified the air as the beast traded blasts of destructive force with the mages. When the dust settled the evil beast was dead, but so was the Fire King. Of the other mages; the Wind Mage was grievously wounded, the Water Mage had disappeared, and the Earth Mage was driven insane and fled to her forest caverns.

After the Wind Mage's wounds were administered to, he returned to the palace and brought back a gilded casket containing the Fire King's broken body. A service was quickly held and the King was entombed in the Royal Vault deep within the catacombs beneath the town. No sooner had the seal been placed on the King's tomb than another beast descended on the hapless mourners. Nobody stopped to fight this one. As it was, few enough managed to escape the decaying halls of the catacombs with their lives.

Since then things have gone from bad to worse. The beast still inhabits the catacombs, rising occasionally to feed on terrified townsfolk. The country-side is suddenly filled with all manner of deadly creatures, including many old enemies and a new infestation of slimes. The Wind Mage is said to be besieged in his tower, and still nobody has heard from the other mages. To add to the growing panic, food supplies are running low, and the crops are only feeding the invaders because nobody can go out and harvest them. A few lucky townsfolk managed to escape in the last of the ships that were in the harbour. Strangely, no ships have arrived since the disaster, particularly since the pirates have not been seen recently.

The Mayor managed to persuade one brave adventurer to descend into the catacombs and confront the beast. He was never heard of again. Now in desperation the Mayor has turned to you, as his best, and last, hope of rescuing the land from its impending doom. As the most powerful warriors and wizards remaining in the land, he wishes you every success...

PART I

THE TOMB OF THE FIRE KING

OK then, prepare yourself... your greatest adventure is about to begin. Good luck and God's speed.

When the story opens you find yourself in a room above the town square, that the Mayor has kindly provided for your use (his brother owns it). Your first step should be to orientate yourself with both the city and wilderness maps. These are found on the inside surfaces of the game album. Check out views from the balconies and collect the food and keys you find there. Don't miss the small windows in the southwest corner of the room.

1. Exploring the Town

When you are ready, descend the stairs to the town square. In front of the arms store is a book which warns "Enter at your own risk". Well, it's a risk worth taking, so go to it. Plunder both arms stores, but be prepared for a fight. The town guards aren't there to be helpful; you're supposed to be fighting the beast not raiding the town, remember!

Now that you have a few valuables you may find it worth while visiting the shop. At this stage in your career it is probably a good idea to stock up on useful, destructive things like bombs, death spells and supershots. A few keys will also be helpful, but don't fill all your pockets. You may notice that the shop has a back room that you cannot get into. This is where Fastbucks keeps his best stock for his most favoured customers, of which you're not one, yet!

If you are feeling particularly underpaid and hard done by the Mayor, you may invest some time in looting the town treasury. All the chests are locked, so you will need a good supply of keys. Be careful entering the treasury. When you enter, guards spring out from behind doors across the street. Leave a few well placed bombs in the street and they won't be a problem. Take the treasure to the shop and go on a buying spree.

It is a good idea to explore the town before attempting to confront the beast. Each of the four towers have some extra goodies that can be useful, if you can overcome the guards. You must pull the levers to get into the northern towers, the southern towers are push-overs. Beware the slimes that have infested the northern parapet; if they get hold of you they will drain away your strength. Only quick wit and quicker feet will get you past them (although the supershots are supposed to work wonders).

The Temple of Dragara is an interesting place to visit. You never know what rumours you may hear, and besides, you could use a prayer. In the temple tower lives the high priest who rarely sees anyone, so don't get your hopes up for a blessing.

The Thieves' Guild is another attraction, they sell the best food, amongst other things, all smuggled in from abroad. This is also a good place to go after your adventures; the Thieves' Guild usually has a few pieces of choice information to tell you, if the price is right. Behind the Thieves' Guild are some training rooms, which contain a few of the more harmless creatures you may encounter on your expedition. Why not get a little monster bashing practice in while you have a chance?

By now you may have noticed that you cannot get out of the town. The big beastie has sealed off the exits. Only one way to deal with an uppity beast, show it who's boss. Well... its about time anyway, no putting it off any longer.

2. Journey to the Death-Beast

Find the entrance to the sewers, its just across the street from the entrance to the Thieves' Guild (accidental, I'm sure). The first chamber you will enter contains a bell and many slimes. Don't worry, the slimes are afraid of the bell. Just ring it and mop up the slimes at your leisure. Across the sewer, in the southern wall of this chamber, is the entrance to the Sewer Masters hovel. His name is Muckmire, and he is not pleasant to be with. You'll have to swim through the muck to get there, unless you are prepared to use some boots of water-walking. If you're swimming, be sure to start on the far left of the chamber otherwise the current will wash you away.

Muckmire is one tough character; you'll have to use a death spell to kill him. Collect his goodies and answer MUCKMIRE to the book (you should have discovered his name from the sign saying that the catacombs are out of bounds). This will open the secret passage on the south wall which leads to some treasure. In this treasure room is a note from the beast to Muckmire, thanking him for his help. That makes you feel better about killing him, doesn't it?

When you have finished with Muckmire go through the door that has the message by it forbidding you to enter. Immediately to your right is a stairway descending to the catacombs, this is the way to go. There is another way into the catacombs if you wish to try something different and don't mind getting a little wet, but I'm not going to tell you where it is.

You are now in the upper levels of the catacombs, a twisting network of decaying corridors and passages. Don't open any of the chests except the first and third on your right, the others are coffins containing wraiths. The next room contains three vortexes that can only be shot diagonally through cracks in the walls. Behind the walls are objects that you can get later if you manage to kill all the wraiths. If you aren't any good at shooting diagonally, get out through the passage in the south east, not the door in the south.

As you travel down the passage a stone block will vanish on your left. Be careful going in here, there are lots strength draining slimes inside. There are also a few relics to be had if you make the effort. If you continue on down the passage you will come across an intersection. Continue south and you will find the lever that bestows wall-walking upon you. Use this to get into the wraith room to the east and behind the walls of the room to the north. If you are a bit of a wimp in the magical arts then you may not make it to the northern room before your magic runs out, but you should still be able to get into the room in the east. Inside that room you will find a message which gives the name of the adventurer that came before you. Write it down.

Return to the intersection and take the western passage, kill the slimes and avoid the first two chests. If you've been good so far there will be a few goodies there for you. Beside the stairway to the next level is a book. Write down what it says; it is very important. Go down the stairs to the next level.

This is where life starts to get a little more complicated. Explore the passages and see what jumps out to meet you. Test your crossbow out on the slimes and wraiths, and beware the cursed ring and boots in the southern tomb. In the northwest corner of the level is the last resting place of Breoghan, the adventurer that attempted this mission before you. He almost succeeded, but overlooked one vital piece of information. He managed to crawl his way up here before expiring and has left some valuable advice and an indispensable object for you. To collect them you will have to remember his name (good thing you wrote it down earlier!).

You should now have a jewel, whatever you do, don't leave it behind. Travel now to the northeast corner of the level where you'll find a room in which there is a book and a passage south, blocked by a large stone slab. As the book implies, this is the only way down to the beast, and the slab will only be removed when you have both the jewel and the mirror. Mirror, what mirror? Ok, time to descend that stair that you passed not far back.

In the top tomb of in this section, only the middle chest on either side contains anything of value. In the bottom chamber is that magic mirror you were looking for. Be very careful. Do not open any doors... yet. As soon as you open one door they will all open and you will be in a sea of wraiths, very unpleasant. Compared to sitting in a hot bath reading your favourite novel, it could be downright ugly. Your simplest recourse is to go for a snatch and run, and when I say run, I mean fast. Magicians may consider

using death spells to blow up the wraiths first. A few well places bombs can also come in very handy. Ok; ready, set, go...

On your way out you will see a book which you did not notice before. Read it and write down what it says. Clues are important and you don't want to forget them. Head back up the stairs to the level above, you find that the stone slab has been removed and that you can continue on. Avoid the first room and continue to the next. The four bottom chests contain useful things, including some much needed food. When that is fully digested take the stairs to the next level.

If you are running short of keys, there is one in the chest in the south east part of the room. Avoid the slimes and collect the gold in the next room. There is only one way to go from here and that is north. This leads to a corridor full of slimes, a good place to use a death spell or a bomb. At the other end of the corridor is a book and some stairs. Read the book and write down what it says. These clues (all clues) are important... don't forget! Time to go down-stairs again.

Pass through the first two rooms and into a large chamber bursting with slimes. Control your impulse and don't use death spells here; try some supershots instead to clear the room of slimes. Further on you will find your path is blocked by another stone slab. User the nearby lever to remove the slab (isn't magic wonderfull) You are now faced with a room full of bombs. You do not want run into them, especially if you can get a few wraiths to do it for you. Return to the large chamber and visit the west wall. You will be able to see a few wraith vortexes. Wait until a wraith appears and lure it up the wall and into a bomb. Repeat this until you have cleared a path through the bombs. Who said wraiths don't have their good points?

In the bomb room you will find another book, write the contents down. Below is the little network of passages that contain the wraith vortexes, use death spells to destroy the vortexes then take the west most route through the passages. Judging from the stench rising from the level below, this seems to be it... Beastie time!

3. The Death-Beast

You find yourself in a network of twisting passages. From each of the passages comes the unmistakable hissings of a death-beast with a bad attitude. Stay right where you are. Before you go anywhere you had better remember all those clues you found earlier. Good thing you wrote them down. First thing: USE the mirror. You will need it to reflect the death-beast's searing blasts. If there are two of you, the one without the mirror should be particularly careful not to get too close to the beast, it always blasts the closest opponent. Dig in your pockets for the jewel; you will need to use it in a hurry.

Take either of the two central passages, they will take you straight to the beast. Nearby you will find a three legged bracket. This is where you use the jewel. Whip out the jewel and place it on the bracket. Always be in a position to reflect the beasts blasts, and be careful not to turn your back. You must now place the jewel and see if you can reflect one of the beast's blasts onto it. A successful hit will destroy the jewel and the spell of protection that shields the beast will be broken. You can then reflect its own blasts back on itself, until it finally withers and dies...

Phew!

Go to the northern end of the chamber and you will find the Fire King's tomb. Take particular note of his name. Loot the tomb while you're there, for you'll only get once chance. In the centre of the tomb is the Fire King's casket. Carefully slide the lid off and peer inside. You jump back with surprise. This is not what you expected to see...

PART II
THE FIRE KING'S PALACE

So, the Fire King wasn't in the casket... You decide to go to the scene of the battle (the Fire King's palace), to see if you can get any clues as to what really happened.

1. Journey to the Palace

Back in your lodgings you notice that your table is missing, "probably another illegal card game at the Thieves' Guild", you think to yourself. With the death of the beast the magic that once barred the exits from the town is no more. Take either the east or west exit from the town and get onto the public transport system. Keep to the left while traveling these roads. You won't have to worry about monsters chasing you... most of them keep away from the roads after a few bad experiences with missing toes. Follow the signs till you get to the tangled forest. After plunging boldly in and then wandering around hopelessly lost for several days, you eventually find a path out by skirting around west and then north.

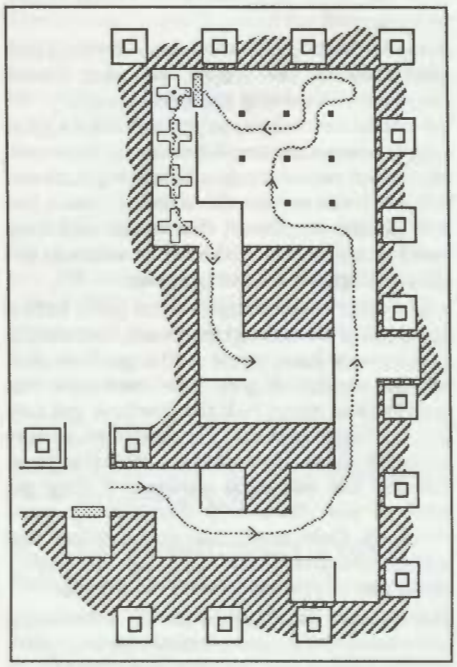
Relieved, you head on through the Fields of Fire, keeping to the middle of the path... There isn't too much of value to be found around here except nasty fires. The Fire Jaunts, once the loyal servants of the Fire King Esgadoom, are very hot tempered, and don't appreciate your burning desire for flame and fortune! Eventually you arrive at the great bronze doors to the Fire King's Palace. You try to use the lever to open the doors that lead under the fiery mountain, but find that they are locked with a magic that only the power of one of the great mages' rings will open. Since you don't have a mage ring (not being one of the great mages, after-all), you decide to use the normal entrance, reserved for the ordinary people of the kingdom.

2. Through the Servants' Quarters

Walking through the entrance hall you notice lots of goodies, quickly followed by burnt feet. Boots of fire-walking would come in very useful here, otherwise you just might have to hobble for a bit. Since the palace is shut you'll have to duck in via the servants entrance (just hide your weapons under your cloak). In the servants quarters don't miss the gold and food to be found, although be careful, some poison has been left out for the rats. You enter the servants' hall, and are greeted with a feeling of deep foreboding, and decide to head for somewhere cheerier. You start to climb the stairs, but are stopped by some guards who refuse to let you pass unless on "official servant business...". Realizing that you need to get past the guards, you go downstairs in search of a servants job.

Most of the servants have left and the kitchens have gone to rat and ruin! "Still, no sense turning down an extra meal", you think as you plunder the locked pantry cupboards with an open-all-doors spell you found just outside the palace gates. You come across the chief cook who demands to know which cook sent you before he will let you in. Muttering something rude about kitchen bureaucracy under your breath, you go off in search of a cook.

In the far corner of the kitchen store are the quarters of the mad cook, a man so obsessed by the idea that someone was trying to steal his famous flambe recipes that he had the Royal Trap-smith install a magical combination lock. Luckily, the Trap-smith is a good friend of yours and during one of your



The Cook's Quarters

many drinking binges down at the "Sleazy Slime" wine-bar, he sketched out a floor plan of the lock on the back of a soggy napkin which (by a marvelous coincidence) you happen to have with you...

You'll find a "find-traps" spell just south of this room, which you might find useful in completing this puzzle. Starting in the corridor just outside the room, walk: one square north, two squares west (till you're standing against the wall), two squares north, one square east, one square north, one square east (to walk over another magic spot), one square west, one square south, two squares west (till you hit the wall), then north one square and west one square. You find yourself in the corridor that you follow into the cook's quarters... Phew! No wonder they call him Crockpot, but he sure cooks up a great rat's tail stew.

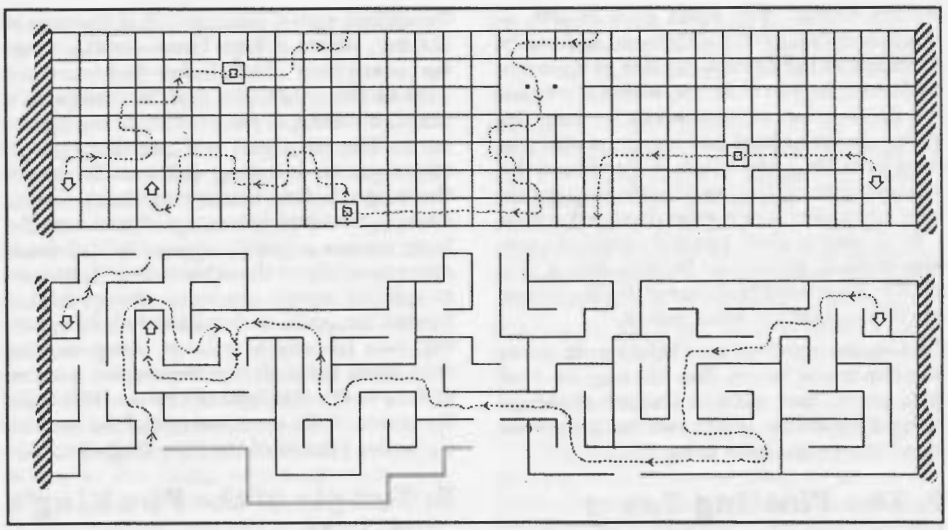
Now you can visit the chief cook; tell him CROCKPOT sent you. So he wants some coal does he? Might as well help the old guy (who knows what he might do for you in return).

3. The Furnace Rooms

Go north from the chief cook's room to enter the furnace rooms. Some nasty traps have been placed in here to try and stop the coal thieves, who have been stealing coal and selling it illegally. What else would you buy on the black market? If you feel up to the traps, there is a stash of goodies to the west. Go to the levers that control the furnace. You decide that you might as well turn down the heat if you're going to be wandering down below. To the east you find a lever that summons some unwanted lime spiders, but also opens the passage that leads you around the furnace vents and down to the coal store, to finish your task.

The hunchback miners down here keep digging up the Fire Jaunts' homes, so the Jaunts have developed a respectable hatred for any of the hunchbacks that walk around here. You'll find some boots for fire-walking to the north east of the level, just near a huge coal store (the way in is on the other side). Making your way carefully around the furnace and into the coal store, you find to your frustration that the coal is too awkward to carry without a coal miner's chest. Fortunately you remember seeing one to the south, but unfortunately you also remember that the only way there was through the heart of the furnace itself (lucky you turned the flames down a bit). Put on your boots of fire-walking, and go through the furnace tunnels where the hunchbacks are working to find the empty coal chest. After filling your chest with coal you head back triumphantly to the chief cook with the knowledge of a job well done.

Thinking that you are a servant, he gives you another job to do; taking hot broth to Fripp Hawkfins.



The Door Maze and the Wall Maze

4. Fripp's House

Go back through the servants' quarters, up to Fripp's house. Fripp seems a nice old man, and he tells you to find Jarral in the residential quarter of the palace. He then proceeds to tell you his entire life history and the histories of a number of his more distant relatives before you finally manage to slip away in search of the exit. You find some relics to the west and some scrolls in the library to the east; telling yourself that Fripp would have given them to you had you been able to interrupt him long enough to ask for them... The only exit is through a gate in the top right of the garden, which is opened with a lever in the top left of the garden (yes, through all those spiders). There is a bell of stop time near the ornamental lake, which will help you defeat the spiders. Ringing the bell may give you just the time you need to place a surprise bomb for the inquisitive spiders.

Leaving Fripp's place you enter the caves under Mount Erif. Hunt around through the passages collecting gold. North through the caves will lead you to the volcanic centre of the mountain. There are some goodies to be found, but beware; the caves around here are unstable. If you can get both the boots of fire-walking and wall-walking there is a health spell to be found in the centre of the fiery mount. When you have finished looting go south through the passages of gold till you reach Darkblood's trap.

5. Darkblood's Trap/The Door Maze/The Wall Maze

Darkblood must be a particularly nasty fellow if this trap is anything to go by. Admittedly, last year in the live-slime eating contest he won by a large margin; but this trap takes the cake! "He's definitely getting crossed off my `Dragara's New Year Celebration` card list", you mutter to yourself.

The easiest way to get through this trap is to wait until the slimes generate and start milling around. They can't walk on the path, so just walk where the slimes don't; take it slowly and you should be fine. If you have a find traps spell, don't let it sit there and waste pocket space... use it! The first set of stairs takes you back down to the barricade that Darkblood set up, and you certainly don't want to go back there; not after all the trouble you've gone to just to get to the other side!

Leaving Darkblood's trap you enter a room with three ancient, talking doors. After some mental dexterity of cranium crunching complexity, you decide that the Bronze door is telling the truth, and the other two are lying... or was it the other way around... "Anyway, the Bronze door has the nicest voice", you think as you step through. In the passages behind the Bronze door you find that some of the walls aren't quite as solid as they appear, and perseverance leads to a few more supershots and an extra meal.

There are two exits from the path; north and south of the level. The north exit leads to the wall maze, and the south exit leads to the one-way door maze. Either of these mazes will lead you to the Residential Quarter in the Kings Tower. Neither of these mazes will lead you there willingly...

6. The Residential Quarter

The residential quarter is home to many of the Fire King's people. Everyone is a bit on edge right now (what with the death of the King and all), and one house in particular containing a bright jewel, is well barred. Remembering the advice of Fripp, you search the streets for Jarral's house. A rather nosey doorman refuses to let you enter until you have told him who sent you. You go upstairs and listen to Jarral's advice.

"Ten days ago", he says, "there was a battle at the top of the palace where the King's room is. Shortly after the fireballs settled, a man was seen taking a jewel into one of the

houses below." You open your mouth to thank him, but he abruptly turns and heads down one of the narrow cavities in the attic, beckoning for you to follow, which of course, you do. Buy lots of supershots (to keep the sticky slimes at bay) and anything else you need from his secret stash. A clue about the whereabouts of the magic mirror particularly takes your fancy, even though it seems a little over-priced. Having satisfied your urge to shop, at least for the time being, you go off in search of a trapdoor above the house where you saw the jewel before.

Finding the trapdoor you lightly drop down into the house below. You manage to steal their jewel, and quite a few other things before they realize you're not really the roof repair man you claim to be.

7. The Floating Tower

Take the stairs up to the Courtyard of Tranquillity. Hoping to find the guidance of the Fire King you wander through the garden to a large elm in the north-east corner, and sit just below it. Your prayers are answered and you are directed to find the chest that lies at the top of the Floating Towers. Inspired by the Fire King, you wander through the gardens and gain some helpful information as to the whereabouts of the Floating Towers.

Follow the magic forces that push you off the east edge of the balcony. Grabbing for the railing with all the unsuccessful enthusiasm of a cartoon character, you find yourself falling down past some small towers suspended in mid-air by nothing at all. You barely have time to ponder the questions of: Why? How? and Where can I get one?, when one of them breaks your fall. Here you have a monster just waiting to throw itself onto a bomb; only there is a door in the way, which you can't reach. An open-all-doors spell would come in handy! Hitting the lever makes the exit stairs appear as does a magic spot just above the stairs. Climbing the stairs will take you to the Upper Floating Towers.

Once again a generous soul has left an active bomb for you to kill the monsters with. Duck behind the bomb and watch the slimes turn themselves to jello. Leap off the tower, through the illusionary walls to the north (above the fire), taking you to the lower Floating Towers again. Push the lever to make some stairs appear in the north east corner of the tower (get your death spells handy first). Up the stairs to the upper towers, exit via the north west corner, behind the supershot. Kill the beasties and pull the lever, making two stairs appear. Take the northern stairs up. Go to the north east of the tower to make the block disappear, letting you use the bridge to the east.

You open a chest in the east of the tower and a strange and very talkative mist wafts out. It starts drifting off to the south east (so you follow it). Follow it off the tower to the level below, with the twin stairs. The mist has already floated up the stairs to the south... Struggling up the stairs you find the mist at the top, where it lisps "maps to the Kings turret are here". Well, better find 'em then. Just to the south you find two maps in a chest, showing a path through the crown room. The map you will see depends on where you are standing. Take careful note of the maps before destroying them. Jump down to the lower towers again; pressing the lever makes a bridge appear to the west, cross carefully to the other tower. Take care to quickly shoot the siren ghosts hiding behind the walls, before their hideous wailing does too much damage. Keep moving west back through the residential quarter and up to the Gardens of Tranquillity. Take the stairs (at the southern end of the garden) up to the Temple of the Fire King's People.

8. Temple of the Fire King's People

The entrance to the temple is around to the east, and you decide to go in and pay a visit to the priest. If you help him by ridding the temple of the whirlwinds he will pay you greatly for your kindness. You find the whirlwinds to the north east and generously show them your arsenal of bombs, death spells, and supershots. You return to the priest who does indeed reward you. All you need to do is decide which chest to open. You can use a spell of examination if you have one available; or drop all your keys nearby so you can't open the locked chest; or (most likely) save the game and guess. If your choice is not the best you will find yourself in your very own floating grave. When your task is finished go upstairs to the twin turrets.

On the left side of the tower are some well placed bombs (you'll have to find out who keeps leaving them around and thank them!), which you can use to kill the Fire Jaunt vortexes. The examination rings on the west side of the tower will let you sort out the treasure from the traps. Stepping out onto the balcony on the east side of the tower for some fresh air, you notice the storeroom below. Remembering the clue that you bought from Jarral's store above the Residential Quarters, you decide to try to break into the storeroom to find the mirror. Jumping off the south side of the balcony, you find yourself in a storeroom full of goodies. Don't use the open-all-doors spell that you find immediately. Climb down the chute in the storeroom to the floating towers below. You'll land in a small room with a mirror. Now you can use the open doors spell, and get that mirror!

Make your way back through the Gardens of Tranquillity, up through the Temple and the Twin Turrets level 1 to the level above. Be wary of the chests on this level, the Fire Jaunts get very upset with those who try to steal their things. Out on the balcony you find a manual that tells you to use the levers to repair the broken bridge to the west. Keep yelling "let us free", looking further you find them barricaded in stone cells. You must first free the people who are being held captive. During your search of the level you find a row of levers, presumably the ones that will repair the bridge below. You try to pull them but find that they are magically locked. On the east side of the tower, hidden behind some trees is a doorway into a small room. There, in a chest, you will find a crystal key. You can now go and unlock the people down in the south side of the tower. They tell you which lever to use to repair the bridge. Go and pull that lever, then go downstairs, and carefully cross the newly opened bridge (take care if traveling in pairs, only cross one at a time!)

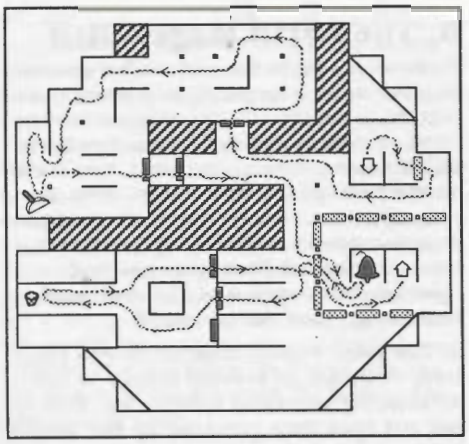
Ascending the stairs you come upon a small side room. Here you find a book that tells of the two jewels that lie in the crown room, and an empty plate that tells of another meal you missed out on.

Go up the stairs till you reach the Crown Room. Make sure you have the maps that you found in the floating towers handy. Follow the map through the north side of the tower till you reach the first jewel. Now, don't steal the crown, take the jewel and press the lever (in that order if you like).

Go back to near the entrance (still following the map). The deep chasms that once surrounded the staircase and the bell have vanished. Ring the bell (of fear) and immediately go west down the corridor, pick your moment carefully to steal the jewel while the keepers are still afraid, and quickly go back out via one of the one way doors (with illusionary walls behind them). Using boots of speed can help you race in before the keepers have a chance to stop you. Now go upstairs to "beneath the Fire King's chamber".

9. Beneath the Fire King's Chamber

Following the passage from the top of the stairs, you come upon a row of bells and a couple of levers. In your usual risk-ridden way you try pulling the levers, but not knowing how they work, they don't. You open the doors above the levers, and find the stairs to the King's chambers blocked by some salamander guards that refuse to let you in, no matter what persuasive techniques you use. Head up to the north-west corner of the building. Here you discover that you can make the slimes attack and kill the salamanders for you. You ring the bell and watch as its magical tones incite the slimes into a frenzy of salamander bashing. Stepping daintily over the soggy remains of the salamanders, you collect a relic and the knowledge to use the levers. You head back to the levers and pulling first one and then the other, find them to be a limitless source of slimes. Ring the bell of attack and create a slime. Carefully you lead the slimes into the room with the salamanders and watch as they are oozed to death. If the slimes die, or the bell stops, try again.



The Crown Room

Now before you go up these stairs, its a good time to take stock of what you should be carrying. You should have three jewels, one from the storeroom of the people's treasure, and two from the crown room; and a mirror from the floating towers. If you are ready, it is time to go up those stairs and see what awaits.

You are now atop the Fire King's palace. Quickly use your mirror, preparing to reflect the death-beast's blasts before it attacks, and get your jewel pocket ready (if you have fire-walking boots with you its also a good time to lace them on). There are three jewel brackets, awaiting your jewels. Fending off a hail of fiery blasts with your mirror, you manage to get all the jewels in place on their brackets. Reflecting the blasts from the beast, you destroy the jewels with the same military precision that got you top marks at adventurer's school. Turning on the beast you give him an overdose of his own medicine.

When the dust settles climb up the stairs into a small attic. You find the Fire King's apprentice tied up in a chest. He explains that three mages came and attacked the Fire King, summoning the beast that you just killed. Badly wounded and seeing his only chance of escape he then fled under the mountain. All is not lost! The Fire King is still alive! Leave the attic via the east staircase. Collect the Fire King's possessions that are scattered around the room, and go and have a look in that big casket below...

PART III
THE EARTH MAGE'S HALLS

The journey back to the town is an uneventful one, giving you a chance to go back over the events that have shaped your adventures.

It is hard to believe that so much has happened in such a short time. The land was so peaceful and then suddenly the Fire King is reported dead. You are still unsure what possessed you to volunteer to kill the beast in the town's catacombs, particularly since there was no mention of a reward. You recall the nervousness with which you peered into the casket, and the disbelief when you found the body of the Water Mage instead of the Fire King. You remember seeing a white mark on his finger where his mage ring should have been. At least that ties in with the apprentice's story that the Wind Mage took the Water Mage's ring.

It sure looks like the Wind Mage is behind all of this. Still, you have to admire his persistence. He tries to kill the Fire King, and the Water mage dies instead. But what did that matter? Someone died, and that was good enough for him. All he had to do was use a little disguise magic and doll up the Water Mage to look like the Fire King. Simple. Throw a death-beast down in the catacombs to stop the mayor from nosing around, and everyone would believe that the Fire King really was dead.

Well he hadn't counted on you, had he! Come to think of it, neither had you! Briefly you toy with the idea of quitting while you're ahead, but grand visions of knighthoods, medals, and most of all, sumptuous banquets, quickly dispel the idea.

As the vision fades in a fanfare of wealth and fame, you ponder some still unanswered questions. The Fire King is wounded and has fled under the mountain, so how are you going to be able to help him? After all, you can only pass through the gates under the mountain if you have a mage ring, which you certainly don't. You can't get one from the Water Mage, because the Wind Mage has taken his. The Fire King's has gone with him under the mountain, so you can forget that one too. Perhaps a visit to the Earth Mage is in order? Perhaps the Thieves' Guild may know more? Perhaps the high priest or the mayor may be able to help? Perhaps you should give up while you're ahead? Perhaps...?

Your head begins to spin. Thinking was never one of your strong points, and what's more, it always makes you hungry....

1. Things to Do in Town

Back in your lodgings at last; your first good bath in weeks is waiting! There is a message left here while you were away; it seems the High Priest has some information that could be useful. The Temple of Dragara isn't too far to walk, so off you go. If the priest won't see you, you could try putting in a few prayers to Dragara. Kneel in a pew and say a few Hail Marys; try all the empty pews, some pews send a stronger signal to Dragara than others. Go upstairs and visit the High Priest. He tells you that you must go under the mountain to help the Fire King, but to get under the mountain you will need a Mage ring. He has foreseen that you will be carrying the Earth Mage's ring ("that makes sense", you tell yourself, "since that's the only ring I know the whereabouts of"). The priest also tells you that there is a back entrance to Fastbucks' shop from the Thieves' Guild (of course). Fastbucks keeps all his special products in the back room of the shop, for his favoured customers.

It's worth paying a visit to Fastbucks back room, so go up to the Thieves' Guild, and go west to Training Room Two. This room has been setup as a test for would-be thieves. If you can pass the test, you are deemed worthy enough to join the Thieves' Guild with all the privileges that entails. Now this test can be difficult to pass, skill has to be shown in strength, dexterity and intelligence. But a few well placed bundles of notes, and thieves being like they are, you have all the necessary clues to pass the test and win the "Thief Class I" award, given to the best students each year.

Firstly kill all the boulder vortexes through the illusionary walls. A bell of summoning should now appear for your efforts. If you ring this bell the spiders will try to reach the bell, stopping them from chasing you (a few death spells still come in handy). Pressing the lever behind the spiders makes a large stone door slide open, revealing the hidden entrance to Fastbucks' shop (north of the room, just beside the boulder enclosure). Immediately you enter the room Fastbucks sidles up to you and starts giving you his best sales-man spiel.

"Ah, my friend, I see you have joined the Thieves' Guild at last. I have many fine items here you may wish to purchase, of course at a discount, since you are one of my best customers." You wince at the mention of a discount, knowing full well that the merchandise in this back room is rare and expensive. Fastbucks continues, "Over here we have clues from experts in every field; behind me you see banquets of the finest produce, specially packed for fast eating."

"Do y...", you start to say, interrupted by Fastbucks' continuing pitch. "I also have Health spells and rings of Heroism, made with the strongest magic in the land. Also, no adventurer should go far without some of... huggh, arrrgh". Having finished his pitch, for the most part, you hit him a few times to shut him up, and complete your shopping in peace.

Make sure you have some supershots, and a few pairs of wall-walking boots come in

handy. Buy whatever else you're used to using in battle, that is: lots of death spells for magic users, bombs and supershots for the others, oh... and a pocket full of keys is always useful. Try not to take too much stuff with you, you'll need two pockets free to carry any jewels and mirrors you find. If a pocket has only a few items, you can easily dump (or use) the contents if necessary to carry more important things.

2. The Journey to the Earth Mage's Hall

Take the west exit from the town to get to the entrance of the main road. There are two main ways to reach the Earth Mage's domain from the town. The main road takes most travellers, or you can take the scenic route via the foresters' huts. To travel the fast route take the western turn off the main road, and walk towards the stone circle. It's best to walk around the stone circle, for it is cursed. Take the small path to the west of the stone circle, into the Spiderwoods. Go south west, across a small bridge, and finally to the Bridge Keepers.

The scenic route is directly south from the turn-off. Presently you come to the Foresters huts, always worth a visit, and maybe even a raid. Make sure you peep in the windows of the huts, you never know what you might find, and explore from the inside as well. Walk north from the huts, through the Spiderwoods (beside a small stream). Take a path to the west, just before a small bridge across the stream, to get to the Bridge Keepers.

3. The Bridge Keepers

You come to a bridge guarded by large, lumpy hunchbacks. It's quite obvious (to the trained eye) that they are graduates of Fastbucks' "You Too Can Be Mr Universe" school of body building. You try a few bolts from your trusty weapon, but they fail miserably, as you had already guessed. After unsuccessfully trying supershots and death spells, you decide to follow their simple instructions (and make a mental note to talk to Fastbucks about his courses). You drop one of your supershot bundles in the arms store (hiding the rest under your cloak). You ring the bell, yell out "hey hunchie, your mother wears army boots, and your father was a slime", and run for your life, with both hunchbacks in hot pursuit. You finally elude the hunchbacks and race across the bridge, taking the north path to the Forest of the Earth Mage.

You travel west until you arrive at some steps that lead up into a small watch tower. Your recent successful adventures have made you a little careless, and you entirely fail to notice a noose being lowered from above, until it begins to argue with your windpipe over what size it should be. "Die, you slime-sucking servant of the Wind Mage", comes the formal greeting from the other end of the noose.

"Arrrhhh...", you manage, "I do not serve the Wind Mage. It is the Earth Mage who is the traitor".

The noose loosens as the guard attempts to sort out the misunderstanding. It would appear that the Earth Mage was in fact on the side of the Fire King. Together they suspected that the Water and Wind Mages were dabbling in black sorcery and plotting something nasty and unimaginative like taking over the world. In order to discover what they were up to, the Earth Mage pretended to join them, but things went horribly wrong at the top of the palace, and the Earth Mage fled back to her halls.

The guards have supplies of supershots along the parapets of the watch tower. Well, you need them more than they do, so help yourself. Take the pit short-cut down into the Walled Gardens.

4. The Walled Gardens

Go north, in through the gardens, until you reach the retractable bridge across the lake. Press the nearby lever to lower the bridge, and cross it to the western end of the garden. Search the bushes to find a rake left lying around by a forgetful gardener. Go now to the south of the garden (back across the bridge) and west again, till you come to the garden shed. Put the rake back in the shed, and pick up the bottles in the crate marked "SLIMICIDE - POISON S9". Take the stairs in the mid-west side of the garden up to the second watch tower.

An old man informs you that if you kill all the slimes he will help you. Those bottles of slimicide you found in the garden shed below will come in very handy. As you run about the tower the slimicide is automatically used to explode the slimes! (powerful stuff this slimicide). Go to the west side of the tower and continue your slime splattering business. After killing all the slimes enter the rooms in the middle of the tower. Because you have freed the folk of the slimes they will help you enter the Earth Mages hall.

They give you an old map which doesn't look immediately useful, but you never know. Don't leave behind the wall-walking boots or the open-all-doors spell, they come in very useful later on, and if you have a pocket free grab the find-trap spell. Oh, and don't forget to visit the restaurant on the way out, it's renowned in the Earth Mage's domain for having the best vienna schnitzel with green pepper-corn and mushroom sauce, not to mention their mushrooms stuffed with pine nuts, bacon and herbs. The people are so charmed with your efforts on the slimes they give you an impromptu banquet. On the way out you go back to the old man, who gives you a key and the instructions "Drop this key at each door of judgement to choose the way." Thinking that this must be some strange sort of blessing you reply, "May your hinges swing true, and your door mat never be soiled."

5. The Earth Mage's Hall

Go down the stairs from the walled gardens into the miners quarters, and down again into the gallery. You try to continue into the mines but find yourself blocked by barricaded doors over each entrance. You muse on the possibilities for a few minutes, then remember the men in the tower gave you something to get in. Reaching the southernmost barricaded door you use both the open-all-doors spell and the wall-walking boots to get past the barricade.

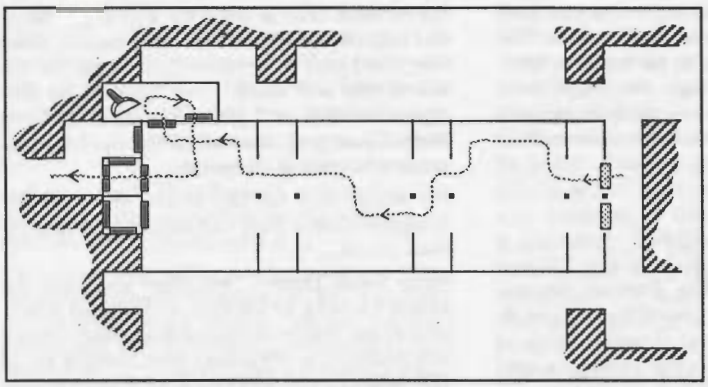
At this point you are confronted by a nasty trap, designed to prevent access to those without the necessary information. Time to get out that map provided by the people living in the tower above. An expanded version of this map is printed below, showing the correct path to follow to negotiate the trap. If you have a find-traps spell use it before you attempt to cross the floor (but note that only traps that are marked with a "*" on the original map are actually bad, the other traps are good). Head for the spot marked "?" on the map, which should have a book waiting. If you haven't taken the right path the book won't appear. The book tells you that the path lies to the north-west. Still being careful not to tread on any of the traps, go out the one-way-door and pull the lever, which moves the stone block in front of the secret tunnel.

You notice to your horror the limp form of the dead Earth Mage, "hmm, the Wind Mage must have found her out" you think to yourself. "Curse his tornado breath", you swear as you examine the mage's body. "Looks like he may have taken the Earth Mage's ring as well." Muttering obscenities as to the legitimacy of the Wind Mage's parentage, you enter the tunnels.

6.The Treasure Chamber

In the tunnels you find the Earth Mage's familiar, a small friendly mole. Just as you are about to kill it (not being particularly fond of small moles), he interrupts you by pleading for his life (no ordinary mole, this fellow). He tells you that the Earth Mage died trying to thwart the Wind Mages ruthless plan to make himself King. She was talking with her spies in the back room when the Wind Mage attacked and killed her.

Many riches fill your sight, but you're only human, and its too much for you to carry. If you thread your way to the north-east of the chamber you will find a magic chest. This chest will hold huge amounts of treasure but is almost weightless, allowing you to go back and collect the gold. There is also a mirror here, with two wands. Down the corridor to the west is a clue to use the cypher to find the hidden door; look up "EARTH MAGE'S PERSONAL DOOR" and "EARTH MAGE'S SECRET DOOR" to find the answer "BEHIND KEY". Go behind the key, through an illusionary wall, and into the spies' back room.



The Halls of the Earth Mage

7. The Spies' Back Room

You enter the room quietly, and are just in time to hear the spies discussing their possible actions now the Earth Mage is dead. You overhear that you need seven jewels to kill the Wind Mage's death-beast protector, and that the Earth Mage's Journal may tell you where they are. The spies decide to simply take the Earth Mage's treasure and run... (to be expected really, they are your typical low-budget spies). Since you have already taken the treasure (the Earth Mage was dead anyway), you had better kill them before they find out. After you kill the spies you realize that a bell has blocked the exit, trapping you in the room. You frantically pull the lever to remove the bell which promptly breaks. Search around the south-west of the room and find the secret catch in the wall which opens up a back passage to another room. In the other room you find some cogs to repair the broken lever.

Back in the Treasure Chamber the Earth Mage's familiar (the surprisingly intelligent talking mole) calls to tell you that the journal you seek is in the pit; then casually adds that there is also a death-beast in the pit (he's also got a sense of humour!). When leaving through the Earth Mage's hall remember to follow the floor-plan to avoid the traps. On the way out you see the pit to the east, then find a message indicating the only way into the mines is via the pool in the Walled Garden.

8. Into the Mines

Trudging back up the stairs to the Walled Gardens, you approach the small pool. Making sure your pack is firmly closed you dive into the calm blue waters of the pond. Swimming under the bridge you get to the centre, and suddenly find yourself in the grip of a whirlpool, sucking you down into a small tunnel, through which water flows down into a pit below. You scrabble desperately at the bank, but the current is too strong and you find yourself tumbling down into the blackness of the pit.

Just as you are deciding that this does not look like the mines you want, a death-beast attacks. "Yikes!", you exclaim... "I wasn't expecting this kind of welcome."

Quickly use your mirror, then run for the exit in the north-west of the pit. You cannot defeat the beast without three jewels. Cursing that you will be back, you race up the stairs, three at a time, until you get to the miners' quarters. There you find eight chests arranged around a chasm. DON'T TOUCH ANYTHING! First find the ring of examination, in one of the miners' rooms, then use it to examine the contents of all of the chests. Many of the chests have pits in them that suck you down to the level below (with the not-so-friendly death-beast). Having raided the chests you try to leave; a foreman mistaking you for a miner reminds you to take the blasting explosives with you. Rather than admit that you're not a miner, and have to explain exactly why you're here, use your wall-walking boots to enter the room with the explosives, and take them with you. Go through the gallery to the north, using supershots to kill the slimes (or just dodging them), then downstairs to the Room of Judgement.

Pass through the room of judgement, through a chamber on the west side of the room, into the mines. You overhear a miner say that "things always go wrong on Thursdays", just as you shoot a group of them. Go deep into the mines, via the upper walk-way. You may have to bend down to negotiate some of the lower parts of the tunnel, and dig through a few areas of loose rocks. As you travel through one of the tunnels you find a scrap of paper with this weeks access codes printed on them (Monday:gruel, Tuesday:stench, Wednesday:hash, Thursday:grunge, Friday:sleaze). Up at the end of the tunnel you find two jewels, with another two visible over in a nearby tunnel.

On the way out, take the west-most tunnel. Examine the rocks carefully, you may find a secret stash of goods hidden in a small crevice. On the way back down the moving walk-way, don't ignore the relic and other things behind the wall. It may take a few passes to shoot out the wall, but its worth it. Answer the question book to the south of the cave to get into the back of the mines, on the way through get the wall and water-walking boots. Around the end of the tunnel you find a sign warning of blasting in progress. Use the wall-walking boots to jump over the walls, and get further up the tunnel before the bell stops ringing. If you aren't quick enough the rock is blasted and you become trapped by the falling rocks. Further up the passage you notice that flooding has occurred. Time to use the water-walking boots. At the end of the tunnel you finally get the two other jewels seen from the other tunnel, making four jewels that you are carrying.

9. Stuck In the Cave

On the way back you find that a cave-in has occurred, blocking your exit. Opposite the bell is a block preventing a miner from moving; shoot out the top of this block to free him, then ring the bell to lure him into the other tunnel. Once on the other side of the wall go up and ring the bell in the northern end of the cave. Hearing the bell, the miner goes to the end of the corridor where he uses a bomb to blast through the rock which frees you. Once free, head back into the room of judgement.

10. The Room of Judgement

Here you are confronted with the doors of judgement. Every door except one will drop you straight into the pit! You recall from one of your untimely tumbles into the pit that you could not reach all the brackets. You decide to pursue the Doors of Judgement in the hope that they will lead you to another way in.

Remembering the chat you had with a grateful resident whom you liberated from the slime plague, you take one of your keys and try to drop it outside each of the doors leading to the pit. You find there is only one door whose doorstep will accept your key. Go through this door (the first door on the north-west edge of the room) pick up the chest west of you, which unlocks the secret door off to the south-east of the room, behind the wraiths.

Finally you have all you need to defeat the death-beast. There are three jewel brackets awaiting your jewels in the pit. You should have activated your mirror many turns ago; so go to it! Lurking in a side passage to the west you find an old and rather mouldy pair of boots. Rather than get your favourite hiking shoes wet, you slip them on. You leave barely a ripple as you race across the flooded chamber to the two jewel brackets, nimbly dodging the blasts of the beast. Boy, what a temper! If this is the kind of beast that goes to bed at night, he certainly got out on the wrong side this morning. Diving back into the tunnels you place the last jewel in its bracket. Reflecting blasts from the beast's staff onto the glowing jewel you watch as the once priceless jewel is reduced to a mound of smouldering shards. The other two jewels are quick to join the first, and it is not long before you confront the beast face to faceless. With the same satisfied grin that once won you the part of the Cheshire Cat in the town's production of "Alice in Wonderland", you hold up your mirror so that the beast can take one last look at itself...

You go to the north of the cavern and open the casket. You are surprised and disap-

pointed to find it empty, except for a page from the Earth Mage's journal:

"...my spies have discovered that the Wind Mage has scattered three jewels throughout the land but I do not know where they are hidden. My only hope is that the Oracle may be able to tell me. It will be hard to reach him however as only the Spider Cult have the magic portals needed to reach his distant isle. I leave now for the stone circle that is their home."

It looks like you will have to go and talk to the Oracle, via the Stone Circle... "but how does the portal work" is the first question to be answered.

PART IV
THE WATER MAGE'S FORTRESS

You arrive back at your lodgings to rest up and scrape the adventure's mud from your boots. As you change your sweaty underclothes for something cleaner you recall the words from the journal of the Earth Mage, and decide to head for the stone circle to find the mysterious spider cult and their mystic portals that will lead to the Oracle's isle.

1.Help from the Oracle

Before heading out the west gate, pay a visit to Fastbucks and stock up on your favourite goodies. Make sure you have a pair of wall-walking boots (you never know when they may come in handy).

After a quick look at your map you decide to leave for the stone circle. Go out the west gate and take the road north. Hop off the road at the first left, and cross the bridge into the stone circle. In the middle of the circle is a pit. Check your weapons, say a prayer, and jump down.

Hmmmmmm... Left or right? Well, left is as good as any.

Head left and stop just before the bell. Behind the bell lie two chests. If the Earth Mage's journal is anything to go by the chests contain the magic portals, but to use them you must pay tribute. The book to the north says to go and see the spider queen. Well, anything's better than being chomped on by these spiders. Run away to the east.

Go north through double doors, and then west through a single door. A row of doors leads into a room with everything nasty, so don't go in here. One final single door will lead you west into a chamber with several "cult members" and a vortex surrounded by a number of items. These items are stopping the spiders from materializing, and only the book may be taken without disturbing them. Read the book.

Remember the wall-walking boots you took on impulse? What, you didn't take the boots? Well you'll have to go back to town and get them. With a sigh you begin your search for the way out, which eventually takes you into the room with more curses than a bad tempered hunchback. Avoid all the objects and pull the lever in the north-east corner. Heading back to the west, you find the vortex has vanished, revealing a passage into the Treasure of the Eternal Flame. "Treasure of the Eternal Slimes, more like it", you say to yourself as you wade your way though several deserts worth of jelly. Following the dusty passages you finally surface at the Pillars of Bronze and make your way south-east back to the town.

Back to what to do with those boots... Find a clear spot on the ground and drop the boots of wall-walking. Tribute has been paid, and like all good er... bad cult members you are free to use the magic portals. Go back the way you came (east, south, west) until you reach the chamber with the magic portals. The bell blocking the chests has been removed, so go and investigate further...

You find yourself on the world of the Oracle. Head north along the beach, avoiding any encounters with the spiders. They are nasty and your cross-bow bolts bounce harmlessly from their toughened bodies. Time to introduce them to the super-shot. Hack your way eastwards through the jungle to the ancient stone temple, and climb the stairs.

Inside you find a man meditating. He ignores all your provocations. Avoid his pet slimes as they drain your all important relics. Try to climb the stairs. There's always a catch isn't there? At least he's had the decency to provide the arrows to kill the spiders with. After cursing the disciple (optional), descend the stairs and exterminate the spiders.

You decide to take the commando approach, carving a path through the jungle, and approaching the spiders under camouflage and cleverly out of reach. Remember that each supershot arrow only gives you five shots, so try not to use them on the foliage, won't you.

When you have finished making the jungle into the kind of neighbourhood you would want for bringing up a young Oracle, ascend the temple stairs once more. Take the key that is beside the disciple, read his story and go up the stairs.

Take careful note of what the oracle tells you (oracle's do not like to repeat themselves). "There are two rings at the top of a windy tower... Three shining jewels are hidden in a distant land. One by an oasis, one guarded by a grove of ancient trees, and one in the ruins of a civilization lost beneath the desert sands." Hmmmm... I'd check my map if I were you. Enter the room, wander around, read his words of wisdom and take note of his words of advice. "I see a headland with a secret cave that is used by a pirate." What in Dragara's name could that mean? Take the jewel and remember "...it is one of the seven you will need." Don't shoot the disciples or they will get annoyed and throw fireballs at you. Ascend to the next level to return to your own world.

Go south and up the stairs and find the magical casket that will return you to your own world....

Your head throbs. Whether its from the crash-landing or all this stuff about jewels and rings, you're not quite sure. And if that's not enough, a trap-door has opened up in the floor of your own lodgings! Naturally you investigate...

Follow the secret passage...

So the pirate has a secret entrance to the Wind Mage's tower. That could prove to be useful, seeing as you happen to know of a couple of mage rings that are stashed up there... You can try to kill Sirus but it won't do you any good. Take as many of his things as you can carry and sneak away to the east.

Well, well, well, back in the Thieves' Guild. Better make the most of it and buy some clues. "The pirate's name is ....." and "There is a tunnel from the river's source to the .....". Interesting, but not terribly useful... yet...

2. The Three Jewels

Now what to do? Well, you're after the mage rings so you can get under the mountain and help the King. Unfortunately the mage rings are currently sitting safe and sound in the tower of the evil Wind Mage. The Wind mage has a nasty beast that you are going to need seven jewels to kill, so you'd better get those first. Now where did the Oracle say they were? Look at your map, and find the Whispering Grove.

(i). The Whispering Grove

Fill your backpack with your favourites from Fastbuck's shop (boy is he making a packet on you!), and head out of town, passing through the west gate. Head north along the road, taking the exit to the stone circle. Travel north past the stone circle, following the path that leads to the bronze tower. When you are right next to the bronze tower, head west and you will find yourself in the Whispering Grove, a circular ring of ancient trees.

Enter the grove by shooting out the bushes (be careful not to hit the trees!). Take the book and the water-walking. "Go west, upstream. Release the flame, get the jewel."

Journey west, past the pool till you reach a stream. Activate your boots of water-walking and go upstream until you reach a vortex and some hunchback guards. Destroy the vortex and the guards and go west. Kill all the guards - death spells, supershots, bombs, brute force; you know the routine. Read the two books. Here you must look up the Oracle's Cypher with "THE FLAME'S

HIDDEN DOOR" followed by "THE FLAME'S ANCIENT DOOR" these two words give the location of a secret cave. Swim downstream and go east back to the pool. Follow the directions of the cypher into the darkness.

You find yourself in an underground cave. Proceed north, through the one-way door, and attempt to ring the bell, noting that the clapper is missing. Collect the relics (you need all the help you can get).

Go west to where the watchers are guarding the jewel. There is no way past. The watchers are immune to all attacks, as are the vortexes, and the watchers are "Patient until time ends.." which could be a long time if you can't find the clapper to the bell of time stop. Don't give up, continue upstairs.

Read the book, go back to the pool. A tree behind the pool blocks the entrance to another cave. Destroy the tree and enter the cave.

Kill the slimes in the cave and search the chests. In one chest you will find the bell clapper. A passage to the east will lead you back to the bell. Ring the bell and while time is stopped, rush in past the watchers and grab the jewel. One down, four to go... or was it five?

(ii). The Oasis

Next on the hit list is the jewel by the oasis. Check the map under 'O'. Vanishing Oasis... don't really like the sound of that.

Go west past the Whispering Grove to the bronze tower. To the south of the Bronze Tower is a bridge operated by two levers. Cross here and head to the north-east corner. Go north into the West Fields of Fire, then east across the Fields of Fire and East Fields of Fire into the Vanishing Oasis.

Avoid the lower reaches of the vanishing oasis area, as these are inhabited by desert whirlwinds that will happily rid you of any gold you may have (as well as blowing away a few health points). The oasis itself is further north. By approaching it you find that it is aptly named. Go to the east side of the oasis. When it reappears you will see a jewel and a book. Approaching from any direction other than from directly above the jewel will cause the oasis to vanish. Go to the top of the level and approach straight down to the jewel, shooting through any bushes that may be in your way.

Now, to find the jewel in the ruins.

(iii). The Desert Ruins

Trek north and you will reach the blistered sands. The blistered sands go on for ever, and so should you. After many a mirage has been and gone, you should eventually stumble upon a book. "Sandshifter has left the location of the tombs to the desert winds." Searching further should reveal the instructions to get to the tombs. Find the boulder, and position yourself on the north side. Walk north until you get to the green cactus, turn to your west and continue until you see some food. Take note of where it is, walk up to where it was and pick up the book from above. Walk directly south and you will come across the entrance to the tombs. If you do not, it may be because you have strayed slightly from your path. Return to the boulder and try again.

Welcome to the labyrinth! Go west. Take the first north, then immediately west. Shoot any whirlwinds that dare to pester you. When a secret passage opens up behind you, double back up this passage through the illusionary walls, and back to the start. You will find that a chamber at the beginning is now accessible. Note that Sandshifter is the son of Dustblower. Go back to the west. Note the jewel close by. Open the door, enter the tomb and kill the whirlwinds. The chest contains the body of Sandshifter's father. Unfortunately he has turned into a wraith and attacks you when you open it. Lure him out into the open (stand in the top right of the chamber) and shoot him. While he is immobile (regenerating) get past him and go down the passage behind the chest (more illusionary walls) and you will be able to get to the jewel. Go west until you reach a large chamber. West through illusionary walls lies a lever that gives you access to the two side treasure chambers. Take all but the last object on either side and go up the stairs.

Enter the crypt of the ancients. A passage opens up, leading to the keys to the tombs. If you know the name of the keeper of the tombs you will be able to use the levers to access the tombs and take from a selection of goodies. The tombs guarded by the boulders are the trickiest. You must find a bell of attack to lure them to the side before you enter. The central hall has a room filled with keys. Leave this for now and go upstairs.

Go to the south end of the bronze tower, killing anything that gets in your way. Note that there is a small room that you cannot get into. Return to the northern stairs and go up to the next level.

Kill the slimes, a time stop bell to the east may be helpful. You cannot get into the map room because you are not a map-master. Go around the balcony until you can see a ring below you. Take a deep breath and jump off... Well fancy that, an access ring to the map room. But do you have any free pockets? Can you use anything to free one up? Or do you have to get out, drop some stuff and try again? Head back for the stairs, reading the note to replace the key on the way. Now, masquerading as a Map Master, you can enter the map room. Do not pick up the slow death to the north-west. Note the orb to the east. Taking the key will give you access to the orb. Hop in, shoot the orb, and position yourself so that you can see the different maps. There are three maps in all. Where you stand relative to the orb determines which map will be shown. When you have recorded all three maps, replace the key and leave. Head down to the lowest level (below the room with all the keys).

You find yourself in a dark and dingy vault. In the centre are lots of goodies and all around are vortexes. Don't open any doors, and go and pick up the open-all-doors spell. Go back upstairs, use the spell and collect the keys. Now open the doors to the goodies and leave the nasties closed. From your map that you took from the map room, the wall jutting out in the middle of the vault is the start of a secret passage. Open the door above this section of wall, kill the vortex and enter the passage. Follow it down and reap the rewards. The other map shows another passage whose entrance is behind the south-west most vortex. Kill it and follow the passage. Pull the lever to open the adjoining passage that leads back up to the surface.

Now for the Wind Mage...

Feel free to try a frontal assault on the Wind Mage's tower. You will find you cannot get in, no matter how much health you are willing to lose. Time to check your clues... The one about the pirate at Buccaneers' Point having a back way into the Wind Mage's tower sounds pretty good.

Fastbuck's shop is open 24 hours a day, 8 days a week, so why not cash in some of that hard-earned... er... stolen loot for something more useful.

3. The Pirate's Cave

Head out the east gate and along the avenue to the end. Kill the hunchbacks (a death spell works as well as any) and head to the south-east corner of the level. Avoid shooting the boulders... they're quite harmless unless provoked. Read the book in the south-east corner. The splashing pool above you is the base of a waterfall. Stand at the empty space near the base. A clue will tell you that the pirate's cave lies near an island off Buccaneers' Point.

Journey south across the lakes to Buccaneers' Point. Head for the northeast part of the level. Here you will find a pair of boots of water-walking. Head back to the edge of the sea, and use the boots of water-walking. Follow the headland around until you get to a small island. Ring the ships bell and head east across the sea to a tiny beach. A lever there will bestow water-walking ability (the pirate uses it when he leaves the cave). To get into the pirate's cave you must speak his name. From the clue you bought at the Thieves' Guild you know his name is ..... Enter the cave, and loot it.

Feel your way around the dark cave, dispatching the bats with some carefully aimed cross-bow bolts, and get the magic wand and the treasure. Do not take the boots or you'll make a fine feast for the bats. Follow the twisting passages around until you reach a fork. South will take you to some treasure, then north.

You are now deep in the pirate's cave. Up ahead is an intersection of four tunnels. You can faintly hear the deathly lullaby of sirens... Go up to the crossroads and take the

west tunnel. This is the back door to the Wind Mage's Tower. Pull the lever to move the stone slab that blocks the entrance... Oh dear, you need to find out from Saltbreath how to use the lever to get in. Still, he must be around here somewhere... Head back the way you came until you get back to the crossroads, and continue heading east. The food here has been poisoned for uninvited guests (such as you). Go down the stairs.

Welcome to the home of Saltbreath! Unfortunately he appears to have been captured by the Water Mage, how thoughtless of him. Now you'll have to break into the Water Mage's Underwater Fortress just to interrogate a lousy pirate. Adventuring just wasn't meant to be easy. Still, while you're here you may as well take a look around. The room to the west is his arms store. Go east and then north to get some keys, then along the west passage to a room full of hunchbacks. Death spells, bombs, or supershots; you know the routine. Through the double doors, gobble up the banquets. Where did that boy who told you about Saltbreath get to? Go west young man. Pull the lever, take the boots, and go back to the fireplace. Well what do you know! A secret passage. Use the wall-walking boots to get into the room, but make sure you take the gold before the magic runs out of your boots.

Go out of the pirate's cave and back to the crossroads. Explore north if you want. This will lead to a dead end where you can see an underground river on the other side of a rock wall.

Head back out of the pirate's cave, going south from the crossroads, back through the passages and up the stairs. Use the lever of water-walking to get back across the sea to dry land. You know you must call on the Water Mage so you can find the pirate that is locked in his dungeons. You can try going in by the front door (water walk west from Buccaneers' Point until you find the whirlpool), but you won't be able to get very far.

4. Under the Molten Hills

If you need any goodies go back to town. You will need a pair of water-walking boots for your assault on the Water Mage's fortress. The Thieves' Guild clue told of a tunnel that went from the River's source. That would seem to be the only way in. Head out the east gate and hop on the road. Take the road past the turn off to the Fire Kings palace until the road crosses the river. Leave the road and follow the river upstream on the east bank. Keep to the east bank until you reach the west side of the fields of fire. Follow the east bank and you will find that the river emerges from an opening in the rocks, and you can no longer follow along the bank. Use your boots of water-walking, and head up the river.

You are now under the molten hills. You find that the river issues from many cracks in the rock wall, and you cannot go any further in that direction. Go south from here and you will find an area inhabited by nasty black snakes. Wipe them out. When you have finished, read the book. The tunnel you seek is beside an underground river. Go into the back of the cave and take the Belt and the gold. Go to the edge of the river. From here you will be able to see a whirlpool to the east that swirls down into the underground river. Jump in.

5. The Underground River

You find yourself treading water in an underground river. There are four different currents flowing from the pool. If your boots of water-walking have run out, do this next bit carefully. Move to the south part of the pool (without being caught in the current) and go west. When you get snagged on the single rock, head south. When a bank appears, get out of the water to the east, shooting the bats and mushroom. Take the boots of speed, and read the book. The weir is about to flood. Use the boots of speed, take a run-up and rush across the weir. If you do not get across fast enough, you will be trapped behind the bridge in the swirling waters.

Swim down the river until you get to a cave on the north bank. Go and get the clue. Head for the south bank. Read Sirus' notes. Go along the tunnel, shoot the hunchbacks, get the treasure, and pull the lever to make the bridge appear. Hit the bell of fear to keep the hunchback from blowing up the bridge, and cross. Follow the tunnel through the cave of mushrooms. Try not to disturb them. Use death spells or supershots if necessary. Boots of paralysis are there for the unwary. Pull the lever and continue downstream.

Stop off at a lever on the east bank to renew your water-walking. Cross to the opposite side and investigate the cave. When you have finished, cross to the other side, get some more water-walking, and continue on to the fork in the river. Take the east fork. You recognize an opening to the east as being the one that you were standing in when you were exploring the pirate's cave area. Remember you heard water thundering behind a rock wall? Follow the river down until it opens out. Do not pull the lever (Sirus warned that some were faulty). Go over the waterfall.

6. The Subterranean Ocean

If ever there was a "Do not disturb" sign stapled to a mushroom, this is it. Carefully go to the south-west and get a clue. Cross to the east, and walk along the edge of the underground sea. Near the south-east corner is a way into the forest of mushrooms without waking them. Look for four mushrooms in a row, and shoot your way through the bushes between the middle two. Continue to shoot your way between the mushrooms, until you find a white mushroom. Use a super-shot to get rid of it. Search the cave and read the books. It seems that the mushrooms are the hallucinatory variety... Go back to the south-east corner and off to the south.

You awake in the cave where you had your dream. What could it all mean? A single door on a barren isle...? Brak, master of dreams...? Hmmmmm.... There is a book in a recess in the rock. Read it and eat the magic mushrooms. Cross the imaginary bridge to the barren isle. Take the open-all-doors spell. Go through the single door and down the pit.

Go north. Do not open any doors yet. There appears to be an opening to the north-west. Open the door to your west and get out. The next clue is a doozy. "In dreams, things that seem clear often prove to be misleading." Heading down the corridor to the south you pass by objects to the west. The first three you can clearly make out. They are misleading; do not go down these corridors. The last one you can hardly tell what it is. This is the corridor to take! Follow the path (don't open any doors) to the end. Go west through the one-way door. Now you can use that open-all-door spell. Grab at all the objects until you can pick up a "real" one. This is the gateway back to reality. Push off the level directly behind the object you have removed.

7. The Entrance to the Fortress

Back on solid ground, what a relief. In front of you are the walls of the Fortress of the Water Mage. Now its just a matter of getting in... After checking out the walls thoroughly, you find a weak spot. You are able to destroy a section of wall just above the lever. Opening the door will release the slimes, so make sure they're looking down the barrel of a super-shot. Now read the notice. "Get the guard to open the door". Checking around this area reveals no guard in sight. The guard is to be found by going out of the fortress and over to the west-most end. A bell of enrage will wake him up. The easiest way of getting him over to open the door is by striking a bell of fear that you passed on your way, and coming back to scare him down the corridor. When he disappears, go back inside the fortress. Ring the bell of summoning, and go looking for him. Lure him over to the doors, shooting out any slimes that get in the way, being careful not to shoot the guard. By moving around, and using the summoning and confusion bells, get the guard to shoot out the destructible walls that block the other side of the one-way doors. Simple, really! Go in, through the door and take note of Warden Evet's order. Check out the store room before going through the one-way door.

Kill the guards and recall that Warden Evet is a man of authority. Go east. This is the residential quarter where many of the Water Mage's followers live. Each room has a bed, a pair of boots, and some food. The boots are all paralysis... well almost all. One pair is wall-walking which you will need to get. Go

west and then south down some stairs. You are not allowed down the stairs unless you have the jewel. Go down the other passage to the south and enter the western-most room. A book here tells you that the dungeons where the pirate is being held are several levels down. A corridor running west-east has many rooms on either side. Go in the second door to the north and take the boots of wall-walking. At the end of the corridor is the warden's quarters (to the north). A one-way door leads to a room with the warden and a jewel. If you do not have the wall-walking you cannot get back out. Go in take the jewel and the other stuff and use the wall-walking to get out again. Go back to the stairs and go down.

Kill the bats and pull the lever to move the stone block. Go west through a door and read the book. The key to the door with the slab in front of it has been hidden. Take the mirror and boots of water-walking. Swim down the watery corridor, and enter the narrow room in the south. Take the key and other stuff. Use the boots of water-walking to get back out, or shoot through the passages of destructible walls. Go back to the north and open the door. Follow the corridor into another room with a jewel. Do not touch anything else. Continue on and into the beast's room (three jewels, one beast).

8. Salt-Breath's Cell

Use the mirror. If the beast blasts you, turn to reflect the blast. Run down the corridor, avoiding the beast as he greets you with his lightning bolts. Take the boots of speed. These are good for dodging the beasts blasts. In fact, they seem to be one of the few things that do any good at all. Take the treasure and the clue. The clue refers to the seven jewels you need to kill the Wind Mage's beast. (The Oracle told you this several adventures ago). So you only need five before assaulting the Wind Mage's tower. Anyway, you have more immediate problems at hand. Get ready to drop the jewel into the bracket, and rush in. Be careful to avoid falling down the pits, as these lead to the cells of the dungeon below. When the first jewel is in place, the pits vanish.

This is a good time to use the boots of speed. Rush around and put the other two jewels in place. Reflect the blasts onto the jewels, and when they have all been smashed, face the beast. Be careful where you stand. Try to line yourself up with one of the bits of wall, because when the beast dies, the pits reappear. If you are caught in one you find yourself paying an unwanted visit to the cells. Go to the north-east corner and down the stairs to find Saltbreath's cell.

Go into the north part and take the key. This is the key to Saltbreath's cell. Go east. A message tells you of a mark you notice on the wall. Look at the walls. You will see that some parts of the walls look slightly different to the others. Follow these markings and you will get to the pirate's cell.

Pull the lever to remove the stone block, and enter the cell.

9. Back to Town

Take note of the pirate's instructions for entering the Wind Mage's Tower. Leave the cell and head west, and up the stairs. Take the jewel and the gold from the small room. You should now have five jewels. Go up the stairs, back to the point where you had to speak the warden's name to get in. Continue west from here, negotiating the slippery floors, collect the supershots and go upstairs.

Black slimes spitting fireballs. How much weirder does it get? Go north past the doorman, shoot out the rock wall in the middle of the room, and slide your way around the armed bombs.

Head north for the Stenchwater marsh. Shoot away some rocks to the north. Head east showing the bats one method of population control, and up the stairs.

Coming up the stairs you hear voices. "Ah, maybe I can have some intelligent conversation at last." You are surprised at first, then annoyed to find talking globes. At least they seem friendly; they even want to show you something it seems... After some moments hesitation you decide to follow the black one to find his secret. Pull the lever and follow the black globe. It stops next to some food. Walk through the wall to get to the food. The "secret" that the black globe has shown you is the illusionary walls. Go back and follow the red globe to find the way out. When the globe stops, do not eat the food. Shoot the globe and read the book, head due south through a tunnel of illusionary walls and up the stairs.

You find yourself in a small shack in Stenchwater marsh. Take the goodies and make your way back to town.

PART V
THE WIND MAGE'S TOWER

1. The Outward Journey

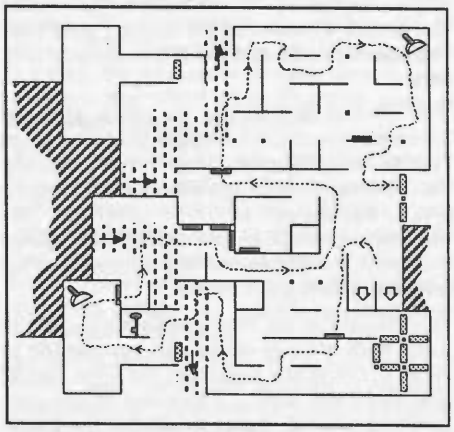
Replenish your provisions once more for your adventure to the Wind Mage's Tower. You are heading there because the Oracle told you that the two mage rings are held there, and you need a mage ring to get under the mountain to aid the Fire King. Take some boots of water-walking and a scroll of open-all-doors, and go to the pirate's cave at Buccaneers' Point, (where you discovered the secret entrance to the Wind Mage's tower, but did not know how to get in). Go to the crossroads (follow previous clues if you are unsure) and take the west passage. When you get to the room with the lever do what Saltbreath told you to. Drop a scroll of open-all-doors by the fire, pull the lever and say WIND RULES. When the block disappears, get the clue and go upstairs.

Follow the path around the cliff face. Far below you can see jagged rocks at the base of the cliff, and decide that this is not the place to practice your high-dive act.

Eventually you reach the entrance to the Wind Mage's Keep, and find yourself on the other side of the doors that barred you in your attempts to enter through the front. There is a lever that opens the doors, but since you don't want to leave just yet you decide to leave it alone and continue upstairs.

2. The Giant Lock

You now find yourself inside the workings of a giant lock. The only way to unlock it is to travel the correct path through it. (That Wind Mage sure is security conscious, isn't he?) Fortunately for you, a disgruntled servant of the Wind Mage sold the blue prints of the lock to Sirus the thief, which you later won in a bet at a Hunchback-throwing contest... and so (to cut a long story short)... here they are:



The Wind Mage's Inner Door Lock

Trace your path through the magical lock, until the last barrel clicks and you enter the garden courtyard. The lock can also be picked with an open-all-doors spell and a pair of wall-walking boots if you happen to have them in your pack.

3. The Tree Dwellers

Take a stroll around the courtyard, admire the view, and find the clue that directs you to the magic pool. The magic pool speaks to you in one of those airy-fairy voices usually reserved for flashbacks with soft mood lighting. With a sigh you remember that you still need two jewels to kill the beast that guards the Mage rings. Well, you never know; perhaps these Tree Dwellers will be friendly? The forest lies somewhere down to the east, so you'd better get going. Climb down the stairs in the northern part of the courtyard.

Show the whirlwinds what it really means to

be blown away, and head down the stairs when the air settles. Follow the lower mountain paths as they twist their way through the Needles of Stone. Some more narrow stairs lead down to a carpet of leafy treetops; the home of the Tree Dwellers. To your annoyance you find that the Tree Dwellers will not let you in unless you are returning one of their sacred "Gilt Leaves". "I wonder what they're guilty of", you think to yourself as you head back to look for them.

You trudge back up to the Needles of Stone, and continue east along the rough path. The sudden appearance and disappearance of the magical bridges makes your stomach do somersaults. You are about to take one of Fastbuck's no-more-queezies when a mysterious golden glow catches your eye. A number of black wraiths try to stop you entering the cave, but to no avail. Cautiously you descend the steps cut into the cave floor. The glow is coming from a chest in the far corner. The lid opens, revealing a small golden leaf suspended in an amber sphere..

Clasping the sphere tightly to your chest you follow the paths back northwards to the stair that leads down to the city of the Tree Dwellers. The spidery sentries challenge you as you approach, but fall back as you reveal the amber sphere and its shining gold leaf. Somehow you don't think it'll be so easy next time.

You set out east across the trees, gingerly crossing the magical bridges that lead from tree to tree. Following your jungle training on the Oracle's isle, you eliminate the eight-legged opposition with cool precision. Remembering what an evil bunch the spider cult were, you decide not to pick anything up without a very good reason.

With the last of the Tree Dwellers lying on his back with his legs in the air, you decide to head north to the temple of the Tree Dwellers. Did I say last?... Exploring to the east you find a small shrine nestled in the trunk of one of the huge trees. You place the chest containing the gilt leaf in a recess in the trunk, and reach for the jewel... Well, it was worth a try, but I guess one out of two is not good enough. Frustrated you head back in search of the second gilt leaf.

While still in the boughs of the tree temple you find a wooden stair to the north, leading down to the forest floor. Traveling south under the canopy of the great trees, you come upon an old shack. Through the keyhole of the door you can make out a chest, shimmering with the aura of something magical. You search the shack but find no way in. The roof seems brittle but you cannot get a foot hold on the walls to climb up. You decide to head back to the Tree City to try to find something that may help you get into the shack. A tight squeeze through one of the larger branches takes you back to the tree city. You notice some smaller trees to the north-west that have yet to be introduced to your defoliation campaign, and decide to pay them a visit. As you prune your way happily northward, you catch a glimpse of a log cabin on the forest floor. A closer look shows it to be the very one that thwarted your thievery; the one with the brittle roof. After a moment's hesitation, you hesitate. It does look a long way down... "Ah, what the heck", you reason, and jump off...

Sure enough, inside the chest is the second gilt leaf. As your hands close around the delicate globe, you feel magic stirring inside and turn to find the wooden block gone from the entrance. Quickly you hurry back to the tree temple to return the gilt leaf and collect your prize.

4. Ascending the Wind Mage's Tower

The seventh jewel lies somewhere in the Wind Mage's tower, so without further delay you leave the Tree Dwellers and follow the mountain paths back up to the garden courtyard.

Once in the courtyard you head to the north west corner. You cross the room, taking care not to slip on the floor and slide into an armed bomb. Using the boots of wall-walking you leave the room the easy way and enter the chambers to the south. After a few elf cakes "to go", you cleverly avoid encountering a room full of nasties by jumping the wall and heading up the stairs.

You head north to the front of the class, hoping for a quick refresher course on the three s's... slaying, slaughtering and stealing. Instead you find a lever, which of course you pull. Do not disturb the class by walking out the front and writing on the board. Leaving the classroom you pass a pool of bubbling water, and come to a lone bell, sitting on the floor. Beyond the bell are some doors, and beyond the doors are some more of the Wind Mage's apprentices. Apparently they have been studying the art of invulnerability, and this is their graduating class. Try as you might, you just can't seem to harm them. In a moment of pure inspiration, you decide to ring the bell of attack and lure the boulders from the south-east to kill the apprentices for you... which of course they do, allowing you passage to the old man and the mirror.

Your find yourself at the top of a stair-well in a small room. A fire burns in a hearth in one corner, and hunchbacks patrol just outside. Make your way west, and then back east down a long corridor. There are many rooms off to the sides that are filled to the brim with hunchbacks. To the south, you enter a room where an old man sits on a chair. The man speaks to you in husky tones, "Use the Oracle's Cypher to get to the Mage's Mirror." You press him for more information but he remains silent. In a room nearby you find a bell. Striking it sends a magical note reverberating through the air. Time stands still as you wander around slaughtering the hapless hunchbacks. Down one corridor you find a book. Mystic runes form, demanding the name of the Wind Mage's Personal Mirror. Look this up in the Oracle's Cypher (the cardboard wheel included with your game), and type it in. The block in front of you vanishes, and you find yourself in a room with one mirror and 1,000 hunchbacks. Kill the hunchbacks. Not just one or two, but all of them. Then pick up the mirror. See the nasty traps the Wind Mage is capable of laying for the unwary? Wearily you trudge back to the old man for some advice. He asks you what it is you seek, and naturally you tell him of the Rings of the mages. As well you might have guessed, they lie in the Wind Mage's Tower. Stairs to the south-west lead up to the Wind Tunnel.

You come up into a room with wind rushing through it at high speeds. Carefully hugging the west wall to avoid being swept away by the gale, you discover a crystal orb through a crack in the wall. Frustrated that you cannot reach it, you let fly with a cross-bow bolt. The orb smashes, instantaneously releasing a cloud of vapour that shapes itself to form a "you are here" map that seems to show a path though the wind tunnel. Your optimistic side tells you that you have found the way out. Your pessimistic side finds you reaching for the "save game"... Take a careful note of the path to travel, and when you find the right spot, plunge in. When you have negotiated the tunnel, continue on upstairs.

A dull, shadowy light greets you at the top of the stairs. You are just beneath the Wind Mage's Workroom, and boy is it giving you the creeps. You step out, only to encounter one of the Wind Mage's nastier creations: sickly yellow spiders of the "totally-invulnerable-to-absolutely-everything" variety. You can run, but you cannot hide. Still, with boots of speed who needs to hide? Try rushing around and using the bells of summoning to keep them occupied. Panting, you find a lever in the north-west, and pause just long enough to catch your breath and give it a good tug. The block at the base of the steps to the south-east vaporizes, and you're up them like a rat from the town sewers.

5. The Wind Mage's Workroom

As you near the door at the top of the stairs a sound like a bolt of lightning frazzling a large granite slab makes you jump. You check your pack for the six jewels, knowing that the seventh lies somewhere on the wrong side of the door. You burst into the room, whipping out your mirror, your prime objective: to avoid the beast and defend yourself with the mirror while you find a way into the Wind Mage's Vault where the seventh jewel lies. A red glow hangs over the room. Seven iron brackets are arranged in a circular formation in the room. Sounds of a beast with a bad attitude are getting closer... Running west you find a room filled with caskets that you cannot enter while the Guardian Beast still lives. Pulling a lever a

little further on discloses some sort of combination which you memorize whilst deflecting fiery blasts amongst showers of sparks. Still further around to the south and east you come upon some food, a health scroll and some weapons. The way into the vault is barred by a block, but you have discovered that some walls are no more than illusions. Heading back to the north you discover that a part of one of the passages is an illusion, and racing through you find yourself tumbling down a set of stairs.

Preparing to descend to a lower level, you discover that the stair has been enchanted with strange runes that prevent you from passing. Beware the yellow spiders. Invisibility or change-self never looked so good, but failing that you're in for a tough game of hide and seek. Head toward the south and collect the keys. Dodging your way between the stone pillars that support the roof you make your way north, and in a chest you find a spell of opening that will let you descend to the treasure room.

You feel your way down a very badly lit corridor into a seething pool of blue slimes. Adventuring has made you impatient, and you turn to your scrolls of death and toss in a bomb or two to save you some time. Sensing that treasure is nearby, you head to the south. "Hey, this is more like it", you smile to yourself as you look out upon rows and rows of chests beckoning you from the shadows. Your smile turns to a broad grin as you enter a room filled with magical relics. Satisfied that the Wind Mage has adequately compensated you for all the trouble he has caused, you head north and find the entrance to his vaults. Enter the combination that the lever in the Wind Mage's Workroom revealed to you and enter.

6. The Black Room

The darkness deepens until you can no longer see your hand in front of your face. It is a magical darkness that can only be combated with magic. Once again you turn your pack inside out looking for something that might aid you. A find trap spell, a death spell or some boots of wall-walking. If you have none of these prepare to go blind. Feel your way around, using find trap or death spells to light the way. The easiest path through is with wall-walking. You are in there for what seems like hours. Every now and then something sticky grabs you by the leg, and you shoot in its general direction until it releases its grip. If you do not have wall-walking, head roughly west, south, east to get to the jewel. Some find trap spells in the treasure room above may help you here. Eventually you find the jewel, add it to your collection and head back to take on the beast.

7. Confronting the Beast

Before you enter the workroom for the final time, you slip on your boots of speed and get your jewels ready to be set into the brackets. You rush up the stairs and into the workroom, heading east for the brackets. With a bit of cunning and dexterity you manage to set the jewels in place with minimal damage, using the mirror to fend off the deadly missiles, and getting the jewels themselves to absorb some of the energy by letting them come between you and the beast. Ducking and weaving between the pulsating jewels you defend yourself with your magic mirror, reflecting the blasts back onto the jewels. Blinded by his rage, the beast unleashes the energy of his staff again and again, only to have you dive behind a jewel at the last moment and the jewel explode in a thousand tiny splinters. Eventually all the jewels lie in broken shards on the floor, and you turn the fury of the beast upon himself. The room is ablaze as the magic arcs back from your mirror, striking the beast until with a wail he withers and collapses in a mound of ash. You pause to catch you breath and let your heart stop pounding before heading east and opening the caskets... At last! The Mage Rings are yours.

After a fairly uneventful trek back to town, during which you spent most of your time singing your favourite adventuring songs with verses like: "I'm an adventurer and I'm O.K., I sleep all night and I hack all day...", you arrive back in your lodgings. Sitting on your low bunk, you turn the Mage rings over in your hands. The light from the balcony plays upon the golden bands, and you can feel the powerful magic woven deep within. This magic alone is strong enough to move the great bronze doors that hold the key to the mountain's heart. Now, with Dragara's blessing, you can enter beneath the mountain to aid the King. If only it's not too late...

PART VI
UNDER THE MOUNTAIN

Your last adventure has proved to be quite financially worth while, and you visit Fastbucks to invest in your favourite commodities. As you wheel your over-laden shopping trolley towards the check-out, you get a nagging feeling that this is going to be your final spending spree... one way or another.

1. Going under the Mountain

Leave town and take the road to the Fire King's palace. Go north through the forest maze (you remember from your last visit that the way through is somewhere to the west), and then through the fields of fire. You come to the gates of the Fire King's palace and are stopped by his guards. "Esgadoom", you boom, and the stone gates slowly part.

Gingerly you approach the great bronze doors. The last time you were here was to enter the palace, now you are about to pass where none but the great Mages have been. Pull the lever and enter the sacred mountain.

The great doors close behind you with an ominous clang, just as the ghostly visage of the Fire King appears before you. Thank Dragara he's still alive! As you approach, he vanishes in a puff of magic, leaving you standing in an eerie corridor that seems to be suspended in nothing-ness. Suddenly you are attacked by lightning, undoubtedly another of the Wind Mage's fiendish dabblings. The Wind Mage has placed paralysis traps all over the corridors. Take the corridor to the east and be wary of the traps. If you have Find Trap spells, put them to good use. The lightning will not walk on the traps, so if you look closely you may be able to tell where the traps have been set. Death spells are good value as always. Plunge down the pit into the darkness.

2. The Invisible Salamanders

You get to your feet and find yourself in another room "hanging" in space. A strange creature resembling a salamander, and blending almost invisibly into the red glow, tries to remove one of your arms, but a well-placed cross-bow bolt or two soon see an end to him. Read the two clues carefully. Behind the door is an invisible vortex. When you destroy it, the flash of discharging magic will reveal vortexes lurking down two of the passages. Take the empty passage to the north. You ponder the words "When the last of the invisible vanishes...", and decide that it must be referring to the vortexes from which the salamanders emerge. Destroying the vortexes must be the key to escape the level. Have a quick banquet, grab some heroism and jump in. Hug the east wall to start with, and shoot like crazy. When a vortex vaporizes, try to pinpoint any others.

You shoot your way north and come upon two levers. One makes some floor appear, and one gives you the power to walk though walls. In the far corner you see a pit, but even with wall-walking and the extra floor space, you can't make it there. Somehow you've got to make that extra tile appear. That's it! "When the last of the invisible vanishes." With a new resolve and an ear shattering battle yell, you go about slaughtering the salamanders. Finally the tell-tale sound like a thousand tiny bells being rung breaks through the noise of battle as the last of the vortexes disappear and the spell is broken. Go back to the north-east corner and pull the levers. Be very careful going down the pit. Wall-walking can be a dangerous thing.

3. The Geometric Bugs

I'm going to be quite frank about this next level. Its a real pain. Think of the last time you were in lying in agony in a hospital bed. Well this is worse. You can quite easily simulate this level by getting something

hard and flat and hitting your head against it several times. Unfortunately this does not help you to get to the next part of the adventure, so you'll just have to persevere... That's life.

The idea here is to shoot the vortexes without disturbing the prism-like things. Its an exercise in patience and frustration. Use your supershots carefully when things DO get in the way and there's nowhere to go. Death spells also work wonders (but only on the vortexes). In the centre of the room is a bell of attack. To the north are a whole bunch of nasty lightnings that are immune to your attacks. Clear out almost all of the prisms (without waking them). Save at least one death spell, so that when all the lightnings have been destroyed by the prisms, you can blow up the prism's vortexes. Force your way through the one-way doors, kill the last of the prisms. Slide down the chute very much relieved. Congratulations!

The chute opens up in a room that appears to be a junction of some kind. At each compass point is the entrance to one of the mage's workrooms. The Fire King is to the north, Earth Mage to the west, Water Mage to the south, and to the east, the Wind Mage. The doors to the mountain's core may only be used by the King, and you find you cannot enter. Similarly, you find the Wind Mage's workroom barred against you. The rings of the Earth Mage and Water Mage will let you into their workrooms. Head west into the Earth Mage's room.

4. The Earth Mage's Workroom

Realizing that the Earth Mage was loyal to the Fire King, you head south through the red mushrooms, since red is the colour of fire. You "STOP THE WIND" and enter the Earth Mage's work area. Here you find two shining red jewels, a health spell, and a special spell of disguise that will let you enter the Wind Mage's workroom. You leave through the north passages as quickly as possible to avoid damage from the wailing mushrooms.

5. The Water Mage's Workroom

You decide that you should investigate the Water Mage's quarters next, perhaps in the hope that you will find some magic that can be used against the Wind Mage. The reception committee are some slimes, you supershot the green ones before they can do any damage. To the east you find a room littered with magic items. Choosing carefully you stock up on one or two useful ones. In a room to the south you discover two pairs of water-walking boots, which you pocket. The sound of rushing water from the west catches your attention, and cautiously you investigate. A swift current flows south, and never being one to turn down a quick dip, you wade in. Soon the current takes you and you are whisked away to the south. Keeping to the east bank, you manage to haul yourself out and avoid being dragged under by the whirlpool. In the next room you find in a case a bright red jewel and a mirror, the likes of which has saved you from many a death-beast. You open the door to the case, but find they are locked in place, and try as you might you are unable to remove them. Hidden under a rock on a small isle nearby you find the key, and return using your boots of water-walking to collect the precious items and leave for the Wind Mage's domain.

6. The Wind Mage's Workroom

Back in the junction room you stop for some gruel, and then, boldly posing as the Wind Mage, you enter his workroom. As you come through a wide passage you hear the dreaded sound of a death-beast lunching on a helpless Hunchback, you quite correctly guess what lies ahead...

The passage opens up into a maze of corridors, not the kind of turf you would prefer to face a death-beast on. Use your mirror and get your jewel ready to whip out and onto a jewel bracket, but I guess you know that by now. Boots of speed help to keep you one step ahead of the big guy with the cloak. Unfortunately, the beast controls the door to the Wind Mage's workroom, and only by killing him will the spells that hold the door be broken. Head north and around to the far side of the room, and open a door that leads back into the maze. Turn immediately to the north and again follow this passage around until you get to the jewel bracket, being careful not to be shot in the back. Dropping the jewel in the bracket is one thing.

Trying to manoeuvre in the confined passages of the maze to reflect the blasts onto the jewel and then onto the beast can be quite a different matter. When at last the beast lies in a smoking heap on the floor, you find the path to the east is open, and without further delay you enter the Wind Mage's workroom.

You come to the conclusion that to have any hope of aiding the King, you must at least find the three magic items hidden in the work area. Clearing away some loose rock, you find a passage leading to the south-west and into a room filled with what-ever-they-ares. After ploughing your way through the bugs you are rewarded with a shining jewel, taking the tally to three.

You turn now to the room to the south-east. It seems harmless enough, but as always, appearances are deceptive. The floor is very slippery and the pits for you to slip in lead to oblivion. Scramble around the room and pick up the mirror. Boots of speed may help you get out of a tight spot or into a tighter one.

You pause just long enough to catch your breath before heading down the passage to the north-east. You come across a one-way door turnstile and pass through, pulling the lever in the top corner to remove a granite slab from a passage in the entry room. At the end of the passage leading from the turnstile you come across another jewel and pocket it without further ado. Passing once more through the turnstile you arrive back at the entry and head north into the passage that the Wind Mage made to break into the heart of the mountain.

7. The Corridors of the Powerful

Some bats have made their homes in the secret tunnel of the Wind Mage. You show your appreciation by sending them a few places further up the endangered species list. The passage ends in the junction room, but on the other side of the doors to the mountain's heart. You follow the passage northwards until it opens out into a richly tiled marble room. Here the ghostly figure of the Fire King appears once more. He seems weaker and urges you to make haste through the corridors of the powerful, turning right (from your character's point of view) at intersections with squares, and left at those with crosses. You carefully search the room, and pull a lever you find to the west to open the path to the corridors. Taking the key to the hall, you find another lever to the east that removes the spider vortexes.

You plod on for what seems like days. The sound of your footsteps on the red marble floor echoes down the passages before fading back into the silence. You force yourself to concentrate lest you take a wrong turn and become lost. Just as you convince yourself that you are indeed lost, you glimpse a faint light coming from the end of the corridor. Following it to its source you come upon a marbled courtyard with a still pool at one end. Investigating further, you find a nest of fire-breathing salamanders to the north, but a quick battle soon finds you alone once more. A river of fire stretches north into the heart of the mountain, and you wisely decide to pay a visit to Hotfoot the Master Fire Walker to get some boots. You head back to the passage where you entered the room, and trusting that you will not get lost, you head due east through the Corridors of the Powerful, until you arrive at the residence of Hotfoot.

8. Hotfoot the Master Firewalker

Following the passage past pools of fire you spy a pair of fire-walking boots and a jewel through a crack in the wall. You investigate further, only to discover that the only way to the boots is past some very nasty looking salamanders that are immune to all your attacks. In the centre of the room you find a large iron bell, but striking the bell seems to have no effect. Turning to the north you find a room with some keys, and to the west a

room filled with armed bombs. Taking care not to set off any of the bombs, you tiptoe through the room and come upon the source of the Fire Kings famous yellow hunting slimes. They pick up your scent and are soon on your trail. Thinking quickly you lure the first few into the bombs in the next room, and then decide to use them to your advantage. Leading the slimes back through the bomb room, you ring the bell which sends the slimes into an attack frenzy, and no longer aware of your presence, they set upon the salamanders. When finally no more salamanders are left alive, you enter the room and collect your prizes.

With the fire-walking boots (and five jewels) nestled snugly in your backpack you head back to the west to the Fingers of Fire. When you arrive at the Fingers of Fire, you lace up your fire-walking boots and go in. The whole room glows from the heat and many extremely dangerous creatures lie waiting just beyond the trail of fire that you find yourself standing on. You follow the trail until finally you arrive at the exit to the north, just as your boots are beginning to smoulder.

9. The Heart of the Fiery Volcano

You find a scroll containing a spell that magically opens all doors, lying on the floor of a fiery chamber. In the corner is a lever. You try to pull the lever, but find it to be locked with magic and set about to find the wand that will overcome the spell. A little further on you come upon a series of cells that house salamanders jailed for crimes of terrible violence. You follow the corridor around to the east, and then north through a passage that leads to a fiery hall with some stairs in the centre. You find two levers here. One gives you the power to walk through walls, and the other is broken (the magical aura motivator has had its coupling severed). From your knowledge of magic, however, you guess that it was used to remove the blocks from the stair, and you hope that the first lever you found was designed to do the same job.

You head back south and continue down the corridor running east, coming upon a room with five rings of examination. Not quite knowing what to do with them, you leave them for now and go north until you come to a lever and a room with the wand you are after. The entrance to the room is barred by a door, a narrow wall, and a second door. You sit down to think about the problem of gaining access. It seems straight forward enough: use the open-all-doors spell to remove the doors and then wall-walk into the room. You begin the incantation to open the doors but stop abruptly. The spell will also open the cell doors that hold the invincible salamanders captive, and you still need to pass the cells to reach the lever.

For a good half hour you pace the corridors, pondering your dilemma, until finally the answer comes to you: There are five rings of examination and five cell doors. Take the rings and place them in front of the doors so that the salamanders cannot get out, even when the doors are opened. Then use the open-all-doors spell, and wall-walking, and get the wand. With the wand clasped tightly to your chest, you return to the first lever, hoping that you have placed the rings carefully enough so that the salamanders cannot escape. With a sigh of relief you arrive at the lever, wave the wand and the lock on the lever vanishes. You pull the lever and head back north to the fire chamber. One of the blocks near the stair is gone, and using the wall-walking lever you are quickly across the fire and down the stairs.

10. Confronting the Wind Mage

The stairs take you to a rocky balcony where to your horror you observe the demise of the Fire King. The Wind Mage disappears with two jewels, leaving the beast for you. Do not panic. You do not have all the jewels (the wind mage took two), but you do have the magic mirror. Almost as a reflex action you whip out the mirror, deflecting the searing blasts of the towering death-beast as you head for the passage along the east wall that you saw the Wind Mage disappear down. Stopping only to pick up a bomb in the centre of the room, you dash down a small flight of stairs, leaving the hissings of the death-beast behind you (for the moment).

From somewhere down the tunnel you hear the Wind Mage chanting, and they certainly aren't camp-fire songs. You catch snippets of the lyrics: Invulnerability... mirror image... doom to all..., and find you have an irrepressible urge to save the game. You hear the Wind Mage directly to the east, and without delay prepare to confront him. The battle was long and bloody, the Wind Mage using his death-hum to sap away you health, and his mirror image to create other lesser servants in his own image to chip in with a few fire-balls. Not to be outdone, you throw everything you have at him, shots, supershots and death spells; all to no avail. As a last resort you place an armed bomb at his feet and withdraw in the hope that he will set it off, but he remains where he is. But all is not lost. The great God Dragara (for whom you have provided great entertainment these past few days) smiles upon you, sending down a great bronze bell that when struck so enrages the Wind Mage that in his eagerness to throttle you he forgets the bomb you set at his feet, and dismembers himself on it. Behind the remaining bits of the Wind Mage you find the jewels you were after, and stuffing them in your pockets with the other five, you return to pay your last *disrespects* to the death-beast.

The Wind Mage's last death-beast is mean and very nasty. Make the most of the fire-walking that you have when you enter the flaming chamber. There are five brackets placed around the cave walls, and two in the centre. Boots of speed are almost essential if you want to have any chance of coming out on top. The rest is up to you. Remember the cardinal rule of death-beast combat; don't do it. But if you have to do it make sure that you never turn your back. A slight singe on the knuckles is nothing compared to 200 volts in the back. Place all the jewels in the brackets before you start reflecting the blasts onto them. If you're really good, you can try to "hide" behind them, so that the beast blasts them directly (and you avoid even knuckle burns).

At last the great shroud lies still upon the ground. With a sigh of great relief you go back to the large casket that you came across in the centre of the room. Just nearby you find the ashes of the Fire King (yes he really is dead). Now all that's left is to open the final casket...

FINIS

APPENDIX

A description of levels that you wouldn't normally visit, and aren't necessary for the successful completion of the adventure (but can be fun, or fatal).

1. Mount Deception/ The Hidden Relic Store

A complex puzzle, with great rewards. There is a hidden entrance to a cavern under Mount Deception, in this cavern are stored many relics, more than one adventurer could ever use. But to get hold of these relics you'll have to solve a puzzle. To reach the underground cavern go to the south-east side of the mountain, behind a chest is the invisible chute... Put on your wall walking boots and jump into the middle of the mountain! The rest is up to you, but I'll give you one last clue: once in the cavern you need nothing more than the objects provided.

2. The Forest of the Earth Mage

A wise oracle once said "He who strays into the Forest of the Earth Mage without an invitation shall get fed up very quickly and wander for days in a bored and frustrated manner." She was right. If you have not entered the forest by first going through the Bridge Keepers, this is exactly what will happen. There is no other way in. There is, in fact, only one way out as well. Go due east, and then some.

If you are trying to get into the Earth Mage's Halls (and haven't just wandered in there by mistake), follow the directions to the Bridge Keepers first.

3. The Forgotten Treasure

Drinking yourself to oblivion in a seedy bar one day, a small old man started talking with you. He told of a secret cache of treasure that he had collected and kept hidden, deep in the catacombs. "I am too old to face the dangers of the catacombs", he said, "but if you were to collect the treasure for me I would reward you greatly." But you were just reaching the stage of inebriation where the old matron behind the bar didn't look so old, and you felt quite young again; so left the old man to pursue an age old quest...

Walking through "Deep in the Catacombs" you recalled what the old man had said long ago, and wondered if the treasure still existed, or had the man convinced someone else to collect it for him... "If I had to hide a lot of treasure in the catacombs I'd need a big room, so there must be a hidden entrance somewhere", you reason.

4. The Base of the King's Turret

The magic eddies whisked you into this level before you realised what was happening. Dispatching the Fire Jaunts with a few well timed bombs you go back to the centre of the tower. In a room to the west you find that elite guards are well worth leaving alone... The Fire King must have something important up there to have so many elite guards protecting the entrance.

Exploring the tower you find a changing room to the south. "Hmmm", you muse, "if I had a uniform I could sneak past the guards without them knowing." In a small room to the east of the entrance there is a solitary guard. Feeling more equipped to cope with just one guard (compared to the squad next door); you open the door, taunt him with a few curses, then run and hide. When the guard is out of the way quickly enter to the room and grab the uniform you find. Going back to the changing room you step into the cubicle, and step out a few minutes later a perfectly respectable elite guard. Taking care not to expose your cross-bolt hidden under the uniform you step into the guarded entrance and cross the hall as quickly as the guards milling around let you. Jumping through the one-way-door you let out a sigh of relief, tear down the boards over the stairs and race upstairs.

Grab the goodies before shooting your way down the barricaded corridor. The lever at the end of the corridor bestows wall-walking upon you, so jump over the one-way door. As you leap over the door you notice to your dismay that the stairs going up disappeared. A lever in the north-east corner of the tower puts you back on course, and restores your faith in magic. Going up the newly replaced stairs you find yourself blocked once again. A book appears telling you that the only way up is across from the People's Tower. "Damnation, now I'll have to go back down and try the other tower", you mutter venomously to no-one in particular. If you get stuck on the way down you might have to jump for it, over the balcony.

5. The Water Mage's Whirlpool

After finding out that Saltbreath the pirate (who you need to talk to to find out how to use the back way into the Wind Mage's tower) has been captured by the Water Mage, you decide to break into the Water Mage's fortress to have a word with him.

The whirlpool is the most obvious way to approach the Water Mage's realm. It is also not a very successful one for reasons we shall discover.

Take some water-walking boots and splash your way out into the bay. Look for the eye of the whirlpool, being careful not to stray too far out into the sea. (The sea of No Return has not been named lightly). Swirling down through the turbulent water, you find yourself amongst the seaweed harvesters of the Water Mage. The gate in the centre is shut fast, and an algae stained note demands that you see the foreman for access.

Obediently you search for the foreman, finally discovering him in a small room down some stairs to the south east, sitting with his feet up on his desk and a large cigar between his teeth. "If ya want access, take these boots to Jack", he yells, slamming a pair of very smelly workers-water-walkers at your feet. Holding the boots in one hand and your nose with the other you head back upstairs in search of Jack. You find him to the north east, and after dropping the boots you head down the main stairs into the Upper Guardroom.

Blow up the slimes and their vortexes and head out north. If you are feeling particularly patient you can get the slimes to shoot out the rocks behind the one-way door to the east, and get some treasure. West is the way out, but unfortunately not the way down. A sign on some rather formidable stone blocks says that the lower chambers are closed until the return of the Water Mage. "Don't think I'll wait around", you think, remembering the dead body you found in the casket under the town.

Heading north you skillfully avoid the armed bombs put there to stop people on the way in, and continue north through the Sapphire Caves. Nice name, shame about the bats. Shooting through some loose rock you come upon a note dropped by Sirus, the master thief. "...returning to Guild with plans...", that sounds promising, you muse. Striding quickly up the stairs, you find the cavern opening up into the Amethyst Mines.

Two strange globes await your lever press. The black globe says that it will show you the secret, and leads you to some food behind an illusionary wall. The red globe says that it will show you the exit, and takes you through the mines to a place where you can see some stairs to the east. A book nearby directs you due south, and after struggling through some illusionary walls you finally make it to the exit. Lifting a trapdoor at the top of the stairs you find yourself in a small hut in the Stenchwater Marsh. After taking what are probably someone's family heirlooms, you make your way back to the town, eager to find out more about Sirus' negotiations with the Water Mage. Who knows, perhaps it will lead you to another way in...? Its just a shame it had to be the Thieves' Guild. They're always so expensive.

6. The Wind Mage's Inner Door Lock

The stairs to the west of the lock lead down through some dirty cells to the master torturer.

The master torturer is a very unpleasant fellow. His school days were spent in an endless stream of malicious pranks, until he was eventually caught putting lead weights in the headmaster's water-walking boots. He was finally kicked out of apprentice school for attempting to turn his entire form into cockroaches, and filling the room with baits.

Use some clever means of getting past the Master Torturer and pulling the lever in the corner. Go back upstairs and get the prisoners to blast a hole in the wall for you. Following the path around should take you back to the other side of the Wind Mage's Lock.

7. The Bronze Tower

The Bronze Tower is one of the few surviving monuments from the days when history was so young that the phrase "historically speaking" referred to what had happened the day before.

It was built with no particular purpose in mind, back in the days before purposes became fashionable. Whoever built it seemed to like stairs, and had realised that the purpose of the stair was to go up, but had not yet made the mental leap that to be useful they really should lead somewhere.

Climb to the top, and jump down the pit to the southeast. You find yourself in a small chamber which you plunder appropriately.

Climb to the top, and jump down the pit to the northeast or west. You find yourself draped inappropriately over a small monument, and promptly die.

8. The Mushroom Forest

(North from the junction of the Pirate's Cave)

Head west through the Mushroom Forest, removing all traces of its namesake. You finally reach the end of the tunnel, where you can hear a river thundering behind the

rock wall. Finding your way completely blocked you head back again, to the junction.

9. The Sea of No Return

The Sea of No Return is a vast body of water off the south coast. Its big. Really big. Even bigger than that. Any direction that you swim, north, south, east or west the ocean goes on forever. Someone was once found washed up on the beach after being missing for weeks. She was draped over a raft made from spells and wooden keys lashed together with strips of leather torn from her clothing. Fish skeletons told the tale of how she survived for as long as she did, but without fresh water no-one can last forever...

10. Vault of Fire

If you got here from the wall maze, the best thing to do is take the relics and other goodies and run, the vault is not a good place for adventurers to explore.

If you got here by trusting the Marble door you have been fooled. There is no recourse but for you to get out the hard way. As you enter the vault, to the south are a few boots of fire-walking. You'll need them, more than the snakes guarding them do. Don't bother with the four chests, the contents have been devoured by slimes. Lace up the fire-walking boots and enter the fire tunnel. At the end of the tunnel are three seemingly dead-end corridors.Take the middle corridor, the end wall is illusionary. Grab the relics before heading up the stairs into the wall maze above.

The last section of the vault is entered from the "Keepers of the Sacred Rings", for those adventurers who believed the lying Iron door. The hatch above the exit stairs to the west is rusted shut, and won't budge. Take the ring of examination just above the stairs, behind the illusionary wall, and go into the room with the many chests. Slip the ring of examination onto your best magic finger and seek out the chests not filled with nasties. To the east is a chest with a book in it. It also contains a rusty can of oil. Carefully carrying the dripping oil can make your way back to the stairs. Oiling the hinges of the trap-door seems to do the trick, and you're out, into the door maze.

11. Keepers of the Sacred Rings

Its a bit of bad luck if you got here by believing the Iron door. He was lying. Skirt around the outside edge of the level, don't enter any rooms with "beware" signs on the doors. Go west then north until you reach the Vault of Fire. Read the clues just above, to get out of here.

INDEX TO LEVELS

Notes. If a level is marked "Appendix" find the heading in the appendix under the name of the level you want help with. If there a name following the entry (eg: Appendix, Vault of Fire) look under that particular heading in the appendix.

Some levels have help in more than one section, look up all entries to find the appropriate help.

Atop the Fire King's Palace. Part II, Beneath the Fire King's Chamber

Atop the People's Turret. Part II, Temple of the Fire King's people

Beneath Oracle's Chamber. Part IV, Help from the Oracle

Beneath the Fire King's Chamber. Part II, Beneath the Fire King's Chamber

Beneath the Molten Hills. Part IV, Under the Molten Hills

Beneath the Tower. Part IV, The Three Jewels, The Desert Ruins

Beneath the Tree City. Part V, The Tree Dwellers

Beneath the Wind Mage's Workroom. Part V, Ascending the Wind Mage's Tower

Buccaneers Point. Part IV, The Pirate's Cave

City of the Tree Dwellers. Part V, The Tree Dwellers

Confronting the Wind Mage. Part VI, Confronting the Wind Mage

Crypt of the Ancients. Part IV, The Three Jewels, The Desert Ruins

Daisy Meadow. No References

Darkblood's Trap. Part II, Darkblood's Trap/The Door Maze/The Wall Maze

Deep in the Pirate's Cave. Part IV, The Pirate's Cave, Appendix, The Mushroom Forest

Deeper in the Catacombs. Part I, Journey to the Death-Beast

Deeper in the Mines. Part III, The Earth Mage's Mines & Underground Caverns

Deeper under the Mountain. Part VI, The Invisible Salamanders

Fastbuck's Old Shoppe. Part I, Exploring the Town

Fields of Fire. Part II, Journey to the Palace

Fripp's Home. Part II, Fripp's House

Gateway to the Fingers of Fire. Part VI, Hotfoot the Master Firewalker

Halls of the Earth Mage. Part III, The Earth Mage's Hall

Heart of the Fiery Volcano. Part VI, The Heart of the Fiery Volcano

Hotfoot the Master Firewalker. Part VI, Hotfoot the Master Firewalker

Jarral's Secret Rooms. Part II, The Residential Quarter

Keepers of the Sacred Rings. Appendix, Keepers of the Sacred Rings, Appendix, Vault of Fire

Labyrinth of the Nomads. Part IV, The Three Jewels, The Desert Ruins

Mount Deception. Appendix

Outside the Fire King's Palace. Part II, Journey to the Palace

Passages of Gold. Part II, Fripp's House

Pitfall. Part IV, Salt-Breath's Cell

Salt-Breath's Cavern Hide-Away. Part IV, The Pirate's Cave

Salt-Breath's Cell. Part IV, Salt-Breath's Cell

Shrine of the Spider Cult. Part IV, Help from the Oracle

Stench Water Marsh. Part IV, Back to Town

Still Deeper in the Catacombs. Part I, Journey to the Death-Beast

Still Deeper under the Mountain. Part IV, The Geometric Bugs

Temple of the Fire King's People. Part II, Temple of the Fire King's people

Temple of the Tree Dwellers. Part V, The Tree Dwellers

The Amethyst Mines. Part IV, Back to town

The Ancient Doors. Part II, Darkblood's Trap/The Door Maze/The Wall Maze

The Ancient Tower. Part IV, The Three Jewels, The Desert Ruins

The Backroom. Part IV, Help from the Oracle

The Base of the King's Turret. Appendix

The Base of the Wind Mage's Tower. Part IV, The Three Jewels, The Desert Ruins (last paragraph)

The Beach. No references

The Blistered Sands. Part IV, The Three Jewels, The Desert Ruins

The Bridge Keepers. Part III, The Bridge Keepers

The Bronze Tower. Part IV, The Three Jewels, The Desert Ruins, Appendix

The Casket Room. Part IV, Help from the Oracle

The Catacombs. Part I, Journey to the Death-Beast

The Cells. Part IV, Salt-Breath's Cell

The Cells of the Salamanders. Part VI, The Heart of the Fiery Volcano

The Cliff Face. Part V, The Outward Journey

The Cook's Quarters. Part II, Through the servants quarters

The Corridors of the Powerful. Part VI, The Corridors of the Powerful

The Courtyard of Tranquillity. Part II, The Floating Tower

The Crown Room. Part II, Temple of the Fire King's people

The Docks. No References

The Door Maze. Part II, Darkblood's Trap/ The Door Maze/The Wall Maze, Appendix, Vault of Fire

The Doors to the Great Corridors. Part VI, The Corridors of the Powerful

The Doors to the Wind Mage's Keep. Part V, The Outward Journey

The Earth Mage's Workroom. Part VI, The Earth Mage's Workroom

The Eastern Gate. No References

The Eastern Wilderness. No References

The Edge of Eternity. No References

The End of the East Avenue. Part IV, The Pirate's Cave

The Entrance Hall. Part II, Through the servants quarters

The Entrance to the Catacombs. Part I, Journey to the Death-Beast

The Fingers of Fire. Part VI, Hotfoot the Master Firewalker

The Fire King's Attic. Part II, Beneath the Fire King's Chamber

The Fire Tenders. Part II, The Furnace Rooms

The Foot of the Waterfall. Part IV, The Subterranean Ocean

The Forest of the Earth Mage. Part III, The Bridge Keepers, Appendix

The Forester's Huts. Part III, The Journey to the Earth Mage's Hall

The Forgotten Treasure. Appendix

The Fortress of the Water Mage. Part IV, The Entrance to the Fortress

The Furnace Rooms. Part II, The Furnace Rooms

The Gallery. Part III, The Earth Mage's Hall

The Garden Courtyard. Part V, The Giant Lock

The Heart of Mount Erif. Part II, Fripp's House

The Hidden Relic Store. Appendix

The High Priest's Tower. Part III, Things to do around town

The Isle of Dreams. Part IV, The Subterranean Ocean

The Junction of the Workrooms. Part VI, The Geometric Bugs

The Labyrinth of the Beast. Part VI, The Wind Mage's Workroom

The Lakes. Part IV, The Pirate's Cave

The Lower Floating Towers. Part II, The Floating Tower

The Lower Mountain Paths. Part V, The Tree Dwellers

The Miner's Quarters. Part III, The Earth Mage's Hall, Part III, Into the Mines

The Mines. Part III, Into the Mines, Part III, Stuck In the Cave

The Mushroom Forest. Part IV, The Pirate's Cave, Appendix

The Needles of Stone. Part V, The Tree Dwellers

The Northern Parapet. Part I, Exploring the Town

The Northern Towers. Part I, Exploring the Town

The Old Man and the Mirror. Part V, Ascending the Wind Mage's Tower

The Oracle. Part IV, Help from the Oracle

The Oracle's Isle. Part IV, Help from the Oracle

The Pillars of Bronze. Part IV, Help from the Oracle

The Pirate's Cave. Part IV, The Pirate's Cave

The Pit. Part III, Into the Mines, Part III, The Room of Judgement

The Plague-Ridden Houses. Part III, The Walled Gardens

The Residential Quarter. Part II, The Residential Quarter

The Road North. No References

The Room of Judgement. Part III, The Room of Judgement

The Sapphire Caverns. Part IV, Back to town

The Sea of No Return. Appendix

The Seaweed Harvesters. Appendix, The Water Mage's Whirlpool

The Secret Passage. Part IV, Help from the Oracle

The Secret Tunnel. Part VI, The Corridors of the Powerful

The Servants Hall. Part II, Through the servants quarters

The Sewers. Part I, Journey to the Death-Beast

The Southern Towers. Part I, Exploring the Town

The Spiderwoods. Part III, The Journey to the Earth Mage's Hall

The Spies Back Room. Part III, The Spies Back Room

The Stone Circle. Part III, The Journey to the Earth Mage's Hall

The Subterranean Sea. Part IV, The Subterranean Ocean

The Tangled Forest. Part II, Journey to the Palace

The Temple of Dragara. Part III, Things to do around town

The Thieves Guild. Part I, Exploring the Town, Part III, Things to do around town, Part IV, Help from the Oracle

The Top of the Oracle's Temple. Part IV, Help from the Oracle

The Town Square. Part I, Exploring the Town

The Treasure Chamber. Part III, The Treasure Chamber

The Treasure Room. Part V, The Wind Mage's Workroom

The Treasury. Part I, Exploring the Town

The Twin Turrets. Part II, Temple of the Fire King's people

The Upper Cliff Face. Part V, The Tree Dwellers

The Upper Floating Towers. Part II, The Floating Tower

The Vanishing Oasis. Part IV, The Three Jewels, The Oasis

The Vault. Part V, The Black Room

The Vault of Fire. Appendix

The Wall Maze. Part II, Darkblood's Trap/ The Door Maze/The Wall Maze, Appendix, Vault of Fire

The Walled Gardens. Part III, The Walled Gardens

The Watch Tower. Part III, The Bridge Keepers

The Water Mage's Quarters. Part IV, The Entrance to the Fortress

The Water Mage's Whirlpool. Appendix

The Water Mage's Workroom. Part VI, The Water Mage's Workroom

The Water Warden's Quarters. Part IV, The Entrance to the Fortress

The Western Gate. Part II, Journey to the Palace

The Whispering Grove. Part IV, The Three Jewels, The Whispering Grove

The Wind Mage's Apprentices. Part V, Ascending the Wind Mage's Tower

The Wind Mage's Inner Door Lock. Part V, The Giant Lock, Appendix

The Wind Mage's Workroom. Part V, The Wind Mage's Workroom

The Wind Tunnel. Part V, Ascending the Wind Mage's Tower

Tomb of the Fire King. Part I, The Death-Beast

Training Room 1. Part I, Exploring the Town

Training Room 2. Part III, Things to do around town

Training Room 3. Part III, Things to do around town

Treasure of the Eternal Flame. Part IV, Help from the Oracle

Under the Mountain. Part VI, Going under the Mountain

Underground River. Part IV, The Underground River

Upper Guard's Room. Appendix, The Water Mage's Whirlpool

Your Lodgings. Part I, Exploring the Town